OCT 6 1927

# School Board Journal

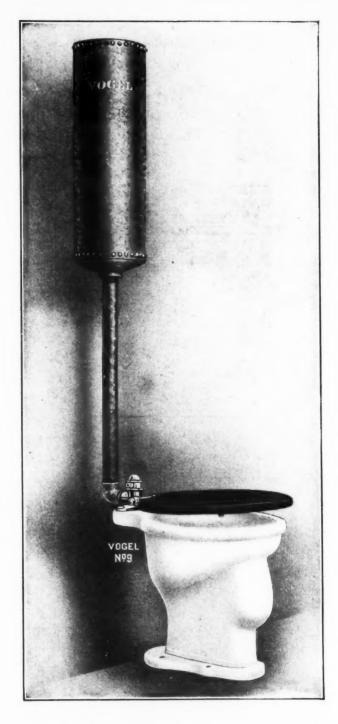


THE BRUCE PUBLISHING COMPANY MILWAUKEE, WIS.



STONG DNG DNG DNG DNG DNG DNG DNG BNG BNG BNG BNG BNG BNG BNG

## Number 9 Automatic School Water Closet



This closet is made to stand the rough usage of the school water closet.

Economical in the use of water.

Seldom requires repairs.

Easy of access when repairs are necessary.

The simplest and most durable automatic water closet.

Many Thousands in use.

Sold by Wholesalers of Plumbing Supplies Everywhere

JOSEPH A. VOGEL CO.

Wilmington, Delaware

St. Louis, Missouri

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## NATURAL SLATE BLACKBOARDS

Board of Education 2320 EIGHTH AVENUE, NORTH BUSINESS DEPARTMENT

BIRMINGHAM, ALA. July 13,1927

D. E. MCKINLEY.
BUSINESS WANAGER

Matural Slate Blackboard Company. Pen Argyl, Pennsylvania.

The Birmingham Board of the purpose which This slate of composition school building whose bought natural staty number on of this departion has lastond replacing alled recommendation best competitives to some variety number on the the these boards replacing alled recommendation best here the these boards were done upon been that install feer paint render was reince has each three years. Led to could render experience have to three years that they could render only about two times in order that they could render to the their three years, time from time in order that service. Gentlemen;

The Board of Education has specified natural we are schools and this school in all new practically feel when this is done now buying will slate boards and we will have life time permanency.

We will have

Business Manager, D. E. McKinley

DEMOK-K1

## NATURAL SLATE BLACKBOARD COMPANY

108 Robinson Avenue, Pen Argyl, Pa.

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NEW ORLEANS

ATLANTA

PHILADELPHIA



CHAS. A. SMITH, Architect.

NATE W. DOWNS, Engineer

## Westport Junior High School . Kansas City, Missouri Equipped with Johnson Heat Control

Why was Johnson Heat Control included in Westport Junior High School? And what is being accomplished with Johnson Heat Control? The important answers to these two questions will definitely decide you to install Johnson Heat Control in your schools. Ask Westport Junior High School authorities . . . or procure details direct from us.

Johnson Service Company Milwaukee, Wisconsin

OMATIC TEMPERATURE REGULATION SINCE 1885

BRANCHES IN PRINCIPAL CITIES,



## KEWANEE STEEL Riveted

BOILERS

During the first 25 years of the life of a heating boiler the fuel cost will have totaled an amount equal to from 6 to 15 times the original cost of the boiler.

Therefore—in determining the life time expense of heating any building—the cost of the fuel that is burned is far more important than the first cost of the boiler.

Kewanee Steel-Riveted Boilers are designed essentially for continued low heating cost due to their economy in the annual fuel bill and to the absence of those annoying expenses for upkeep which are equivalent to additional installments on a boiler's first cost.

Low

Heating

REGIDED BY THIS POUNDATION OF THE STREET OF

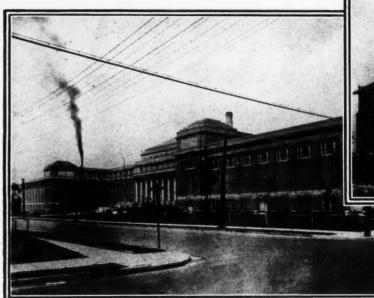
Cost

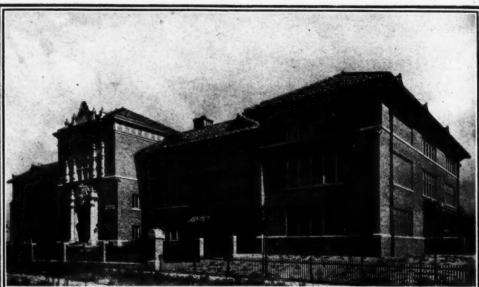
## KEWANEE BOILER COMPANY

Kewanee, Illinois

Branches in Most Leading Cities

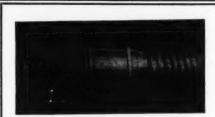
STEEL HEATING BOILERS RADIATORS WATER HEATERS TANKS AND WATER HEATING GARBAGE BURNERS





(Above) Walbridge School, St. Louis, Mo., R. M. Milligan, Architect.

(Left) High School, Middletown, Ohio, Thomas D. McLaughlin
& Associates, Architects.



Spencer Patented clincher coupling. Easily locked or opened. Cannot scratch or mar floors or furniture. Also avoids trouble incident to injury of metal couplings and their consequent failure to couple.

This is only one of the many exclusive features that demonstrate Spencer superiority.





The Multi-Stage Turbine

## The Preferred Cleaning System for Schools -

Because of its thorough adaptability to every school cleaning requirement — and its superiority over other systems of vacuum cleaning, Spencer is the preferred cleaning system for schools.

Designed especially for school service, the Spencer System cleans bare floors, walls and woodwork and does it without the necessity of moving anything. It operates efficiently under chairs, tables, and desks, behind bookcases, pianos and cabinets and gets into ordinarily inaccessible corners with ease and rapidity. By using certain attachments, the Spencer System can also be used for cleaning return tubular or horizontal sectional boilers.

Over 1,200 school installations throughout the entire United States is proof, beyond doubt, of Spencer efficiency and popularity in school service and use.

The recommendations of our Engineering Department may be obtained on any cleaning problem without cost or obligation.

Write for list of school installations and complete data regarding Spencer equipment.

The Spencer Turbine Company HARTFORD, CONNECTICUT

S.P.E.N.C.E.R CENTRAL . CLEANING . SYSTEMS n-

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## High Overload Capacity



The Mark Hopkins Hotel, where this test was conducted, is one of the prominent structures in the new San Francisco skyline.

The boiler room. Rear view of two No. 824 Pacific Rear Oil-Fired Boilers. One of these boilers was used in the test conducted by Leland & Haley, Consulting Mechanical Engineers.

## 152.4% of Rating on Actual Operating Test—With Remarkable Efficiency and No Priming



Not a factory or laboratory test
— an actual operating test on a
notable installation. Write for
booklet containing all the facts.

In one of the most talked of tests on heating boilers in recent years, a standard Pacific rear oil-fired boiler installed in the Mark Hopkins Hotel, San Francisco, established a group of unparalleled performance records.

With the oil burner operating at maximum capacity, this boiler developed 152.4% of rating. This was an actual operating test, made five months after the boilers were put into service. Despite this heavy overload, the report of Leland and Haley, consulting engineers, shows an over-all efficiency of 76.91%—14.78 lbs. of water evaporated per pound of oil! And the steam contained only 0.93% moisture.

This important test confirms the leadership of Pacific Boilers in the heating field. Write for booklet containing complete test data.



STEEL HEATING BOILERS

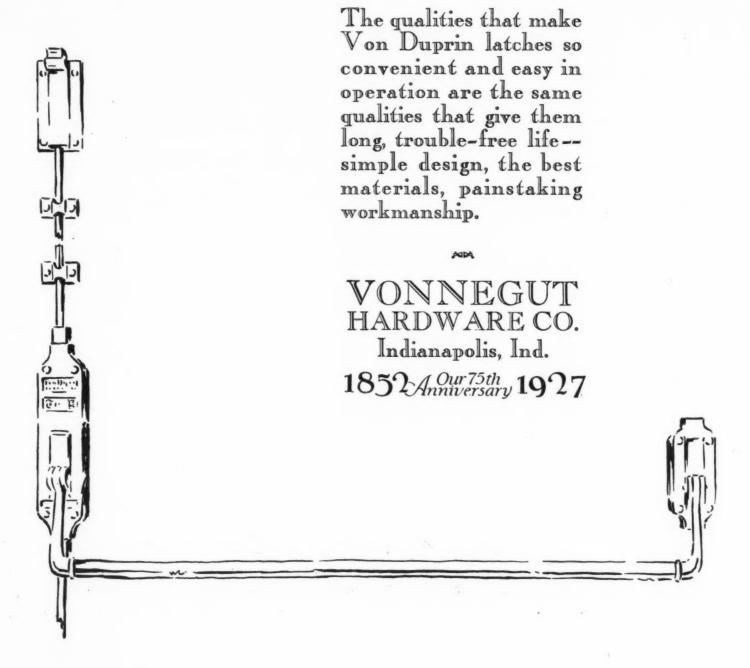
FACTORIES: WAUKEGAN, ILL., BRISTOL, PA.

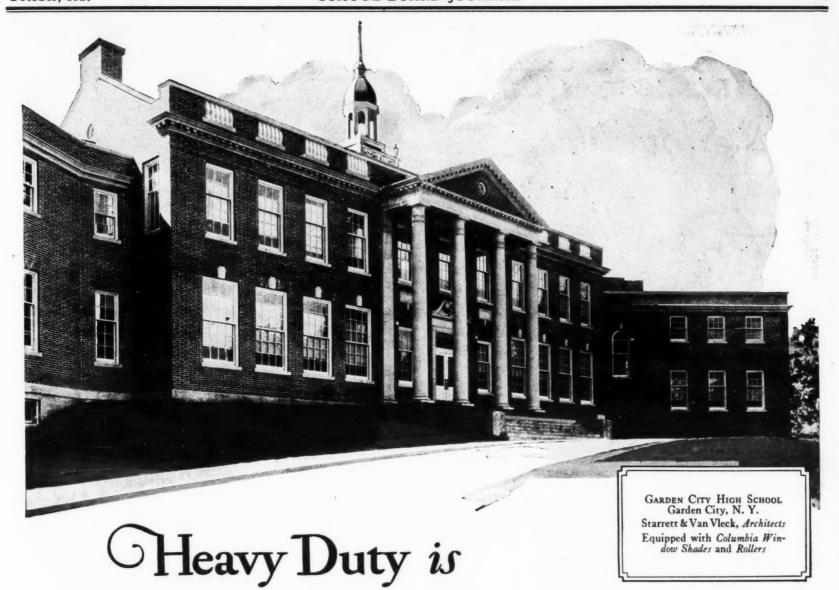
# Von Auprin

Self-Releasing Fire Exit Latches

Sweets, Pages B1876-1879.

AIA 27c5





## its middle name

REPAIRS and replacements—two bugaboos of the school executive.

Yes, a lot of money can be spent under those two heads—and nothing tangible to show for it.

Several years ago, Columbia Mills, largest manufacturers of window shades and rollers in the world, realized that something had to be done to help school executives cut down repair and replacement bills. We assigned ourselves the job of perfecting a window shade that would be prac-

tically repair-proof — a shade that could be installed and forgotten.

And we succeeded. We developed a super-strong shade cloth of unfilled cambric—closely woven,

firm in texture—that will not peel, crack, show pinholes or stretch out of shape. It is painted in a wide variety of fadeless colors to harmonize with the interior and exterior of every building. Its name is the Damasko Heavy Duty Window Shade.

Already, these window shades have made an enviable record in hundreds of hospitals from coast to coast. A recent survey brought to light the astounding fact that in many typical Damasko installations the annual up-keep cost was running

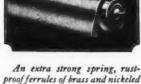
as low as 25 cents for each one hundred dollars of original investment.

That's what we call low maintenance—rock-bottom economy.

### Your Time Saver

You can save time and trouble by using the "Standard Specification for Window Shades," which we'll gladly send on request. A specimen roller and samples of Columbia Cloth are sent with the specification. Just fill in coupon and mail to The Columbia Mills, Inc., 225 Fifth Ave., New York.

Name....



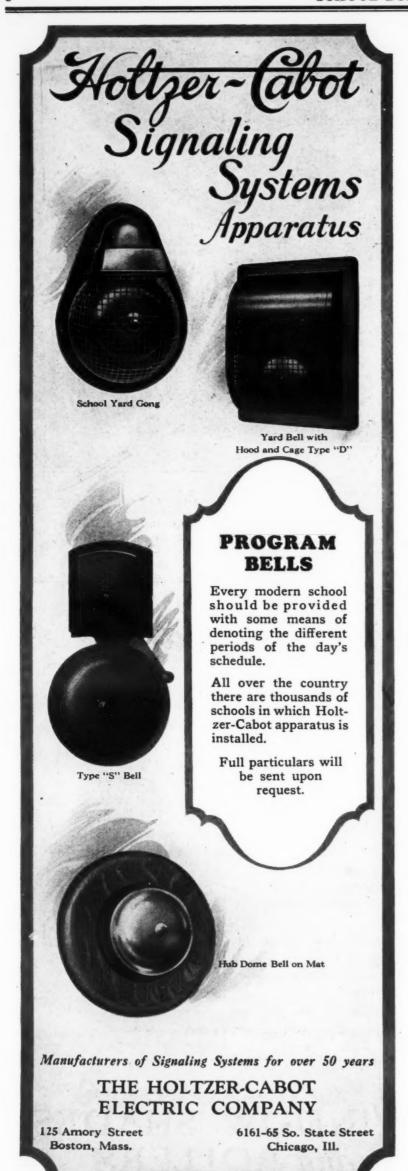
An extra strong spring, rustproof ferrules of brass and nickeled fixtures are exclusive features which give the Columbia Roller longer life, greater lifting power and silent operation.

The Columbia Mills, Inc.

225 FIFTH AVENUE, NEW YORK

Baltimore Boston Chicago Cincinnati Cleveland Dallas Detro Fresno Kansas City Los Angeles Minneapolis New Orlear Philadelphia Pittsburgh Portland (Ore.) St. Louis San Francisco Seatt

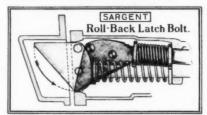
Columbia WINDOW SHADES and ROLLERS



## A new fire-exit latch bolt that can't be jammed



Not even the pressure of a panic-driven crowd can make the Sargent roll-back latch stick



School officials, who are responsible for the protection of the lives of the pupils and are anxious to make proper provision for quick exit in case of fire or panic will be interesed in this new development which has become the standard Roll-Back action for

## SARGENT

Fire Exit Door Bolts.

The improved action is shown by the detailed drawing. The Cross Bar does not withdraw the bolts, but releases the deadlocking mechanism, allowing the bolts to be rolled back into the case of the lock as the doors are pushed open.

#### Security.

The Latches provide complete security and prevent entrance from the outside of the building when the school is not in session, while they can be arranged to permit entrance during school hours if desired.

#### Quick Exit At All Times.

is provided and in case of necessity the doors can be instantly opened by slight pressure on the handle Bars at any point.

### Door Closers

close the doors, during their day by day use, quickly and quietly, the application shown in the illustration with the Sargent special foot (No. 35) being particularly desirable.

Pamphlet illustrating and describing Fire Exit Door Bolts will be mailed upon request.

Sargent Fire Exit Door Bolts, Locks and Hardware are sold by representative dealers in all cities.

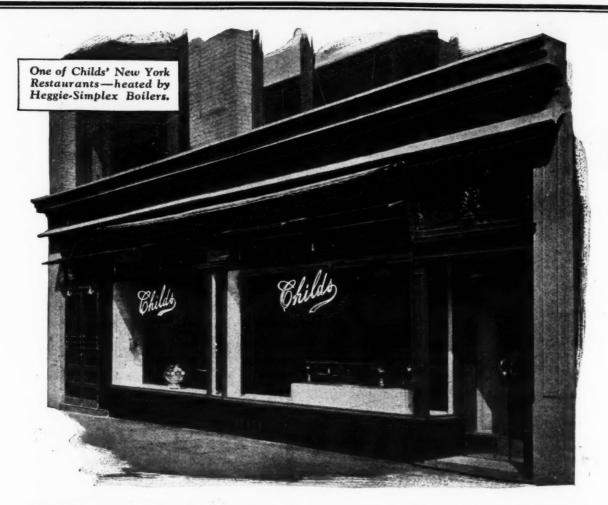
## **SARGENT & COMPANY**

Manufacturers

NEW HAVEN, CONN.

Chicago

New York



## Where Heating is as Important as Eating

THE larger restaurants, hotels and businesses catering to the public well realize that their patrons must be served in comfort. Day-in-and-day-out dependability of Heggie-Simplex steel boilers insure June weather the year around, with an economy of operation that clinches the preference they enjoy as the most modern of heating boilers, in the most modern of buildings.

Heggie-Simplex Boiler Co., Joliet, Illinois. Representatives in principal cities—telephone and address listed under "Heggie-Simplex Boiler Company."

## HEGGIE'SIMPLEX

ELECTRIC-WELDED STEEL HEATING BOILERS



## Your routine need not be affected



## If you repair the Sonneborn way

EVEN if vacation time is over, you need not defer school repairs on which Sonneborn Products are used. The work need not hold up your regular activi-

ties in the slightest degree.

If the concrete floors in your building are dusty, worn or crumbling, harden them over night with Lapidolith. This liquid compound goes on a floor as easily as water, and it hardens over night. Your janitor or any workman can apply it with a long-handled brush. No skill or experience is required. Lapidolith, over night, will convert a floor, dangerous to health and costly in upkeep, to one that is granite-hard for years. You can make this improvement at any time.

The same is true with your wood floors. Another Sonneborn product—Lignophol—will quickly give you smooth, dustless wood floors that last for years. Just as easy to apply as Lapidolith. Keeps wood floors from splintering, rotting or drying out. Don't waste time and money with shellac or varnish. Both wear off. Lignophol alone remains and protects.

Perhaps your hallways or your auditorium need paint. Cemcoat stays white after other paints turn yellow. It goes on plaster, concrete, brick or wood.

Easy to apply. Dries quickly.

Or if your classrooms need toning up, use Sonotint, a paint specially made for school rooms. Has no poisonous ingredients. Can be washed over endlessly. Has no lustre to affect the student's eyes.

These are but a few of the celebrated Sonneborn Products for schools, that have been perfected through years of working with schools in every state.

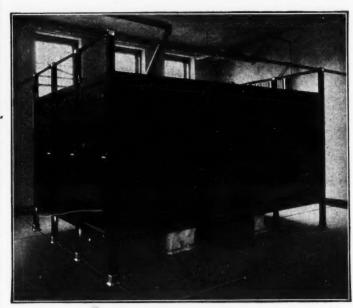
We will welcome the opportunity to confer with you about what Sonneborn Products can do; which ones should be used; how they are applied; the cost.

By dealing with us you have the comfortable assurance of guaranteed satisfaction, for we see to it that the results are always satisfactory. Use the coupon below.

## L. SONNEBORN SONS, Inc. 114 Fifth Avenue New York

L. SONNEBORN SONS, INC.,	SBJ-10
114 Fifth Ave., New York  Please send data on following—	
We plan to repair floors.	
WoodConcrete	
We expect to paint	
Name	
Address	





St. Mary's School - Berea, Ohio.

## In Your School

—as in hundreds of others, Sanymetal Toilet or Shower Partitions will soon pay for themselves in robust durability, ease of cleaning, and downright staying power in the face even of abuse.

"Metal for wear — Sanymetal for Extra Wear."

Let us cite cases.

Sanymetal Products for Schools are: Toilet, shower, dressing and urinal compartments. Corridor and smoke screens. Metal doors and wainscot. Sanymetal Gravity Hinges. Write for New Catalog No. 15.

## The Sanymetal Products Co.

1703 Urbana Road Cleveland, Ohio





THE MIDLAND CHEMICAL LABORATORIES, INC., DUBUQUE, IOWA, WHERE, FOR OVER A QUARTER OF A CENTURY THE HIGHEST QUALITY COMMERCIAL CHEMICALS HAVE BEEN COMPOUNDED.

## Midland Quality Products plus Midland Service

Through all the years of manufacture of commercial chemicals quality has been the paramount consideration. "Make it a little better" has been our watchword. Later—an organization to administer to the many details and wants of a growing clientele was launched and today there are Midland Men located in all parts of the country ready to present and demonstrate any of our products, on short notice. We are eager to serve you.

## Midland Liquid Waxoleum

Wood floors—usually so hard to keep in presentable appearance—can be maintained easily and economically with Midland Liquid Waxoleum. The floor when finished with Liquid Waxoleum is not oily or sticky. Remarkable cleansing qualities are combined with an easy and quick polish.

## Midland Mint Aldehyde

This healthful spray destroys unpleasant odors and fills the room with a rich, fragrant, clean odor; its antiseptic action promotes health and comfort. Ideal for the schoolroom.

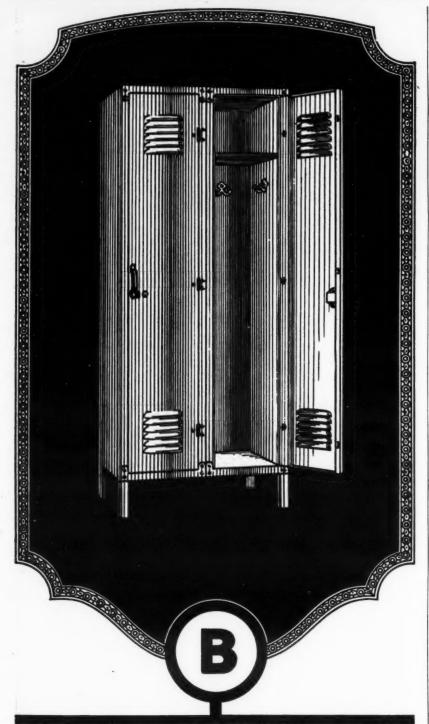
## Midland French Floor Dressing

A superior product for the finishing of floors that have just had a hard scrubbing. Midland French Floor Dressing penetrates deeply into the pores of wood exposed and forms a solid coating of protection. Apply Midland French Floor Dressing for best results.

## Midland Blackboard Cleaner

Sales representatives are located in all principal cities. An inquiry to the home office will put you in immediate touch with the one nearest you, or order direct from, Your blackboards are easily kept BLACK with this cleaner. It absolutely removes all the scum or haze that is usually apparent on blackboards. A neutral product that is harmless to composition boards.

MIDLAND CHEMICAL LABORATORIES, Inc. DUBUQUE, IOWA, U. S. A.



## BERLOY

## STEEL LOCKERS

How efficiently Berloy Steel Lockers have fulfilled school requirements can be plainly seen by inspecting a Berloy installation in your own locality.

Examine the vital parts of a Berloy Locker that has been in service for years. Ask all about repair and maintenance costs—then base your judgment upon the replies you receive.

CATALOG AND PRICES FURNISHED UPON REQUEST.

## The Berger Mfg. Co., Canton, O.

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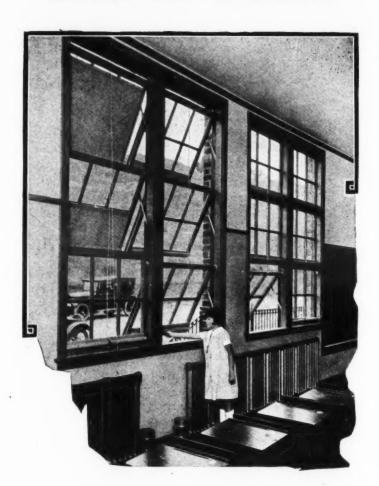
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SOUTH PASADENA HIGH SCHOOL PASADENA, CALIFORNIA Norman F. Marsh, Architect, Los Angeles

## Awning Type Windows Excel for Schools



## DONOVAN UNIVERSAL WINDOWS AWNING TYPE

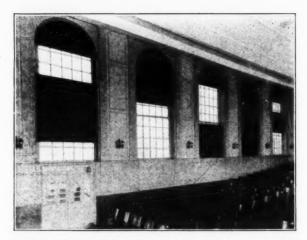
**Complete Information Sent on Request** 

#### UNIVERSAL WINDOW COMPANY

General Sales Office—1916 Broadway OAKLAND - CALIFORNIA

# Mindow Shades

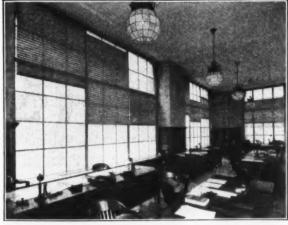
Shut out the sun's glare without darkening the farther sides of classrooms



Lexington High School, Lexington, Mass., showing the assembly hall equipped with dark green Athey Shades. Athey Shades are dyed in 7 non-fading colors—the lighter shades diffusing a flood of soft agreeable light.



Lehman Hall, Harvard College, Cambridge, Mass., equipped with Athey Shades. This photograph shows the shades adjusted to cover the entire windows, yet the translucent white cloth evenly distributes the light over the entire room.



It takes only a moment to adjust Athey Shades to cover the part of the window that requires it—top, bottom, or center—without shading the entire window and shutting out all the light and air.

It makes no difference which part of a window requires shading—top—bottom—center. In a moment's time Athey Shades can be adjusted to shut out the sun's glare, without shading the entire window and making the farther sides of classrooms dark.

All authorities agree that poorly shaded windows are a frequent cause of defective eyesight in school children; and recommend an adjustable shade which permits shading the parts of windows requiring it. Athey Shades can be raised from the bottom, or lowered from the top (folding like an accordion), affording perfect control of the light.

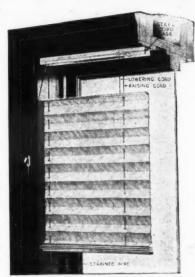
### Can't rattle or flutter in the wind

Athey Shades slide up and down on strained wires. This holds them taut, even against wind pressure, eliminating the rattling and fluttering which is so distracting to pupils and teachers. This feature also prevents them from flapping out of open windows and tearing.

## Extra years of life means real economy

Athey Shades have no latches, catches or springs to get out of order. And the specially woven Coutil cloth of which they are made is as near indestructible as cloth can be made.

The experience in thousands of installations proves they give so many extra years of service that they are the most economical obtainable.



## Athey Cloth-Lined Metal Weatherstrip - a Perfect "Seal" for Windows



Detailed drawing shows equipment for wood sash. The channel is inserted in the edge of the sash and the rail nailed to the jamb. This cloth to metal contact provides a joint that is dust and air tight yet the windows open and close easily.

## ekthey Company

6003 West 65th St. Chicago, Illinois

New York City: F. H. KEESE, 7 East 42nd St.
In Canada: CRESSWELL-McINTOSH, Reg'd—270 Seigneurs St., Montreal, Que.



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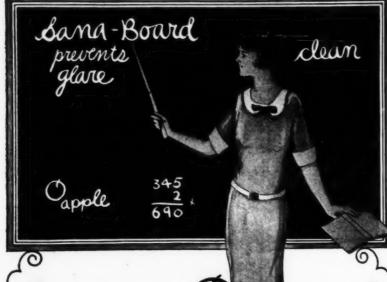
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## Sana-Bourd KeepsBlackboards Really Clean!

ONLY clean blackboards are really black. The slightest film of oil from a cleaner not only makes the blackboard slippery but gives it a sheen that produces glare which strains the eyes of the students who must read what is written on the board. Prevent eye-strain by keeping Blackboards in perfect condition with Sana-Board. Remove layers of chalk too!

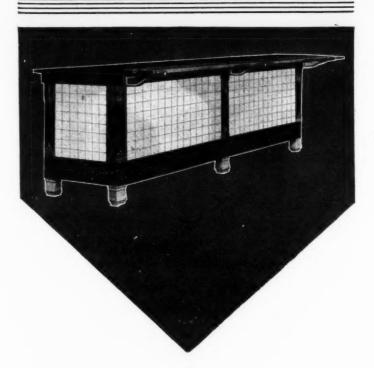
## Economical

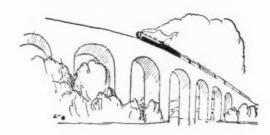
Sana-Board is supremely satisfactory because absolutely neutral and uniform—neither oily nor alkaline. It is made by a special formula of our own prepared to meet the difficult requirements of a blackboard cleanser. Its use is quite simple and but little of it is required for each application. Simply wash the board with the Sana-Board solution once and let it dry. Rinsing is not necessary. It saves labor, too, yet is not expensive.

Write for Literature and Prices

## The HUNTINGTON LABORATORIES, Inc. Huntington - Indiana.







BUILT for wear, no part of a Sani Products installation should need replacement. You don't have to pay bills for repairs or refinishing. Before buying, send for our new catalogue of complete restaurant equipment.

SANI PRODUCTS CO. 20 Sani Bldg. North Chicago, Ill. Selling organization for Marietta Mfg. Co. and Chicago Hardware Foundry Co.







## Every School Needs a Van Cafeteria

EVERY school needs a cafeteria. Ergo, every school needs a "Van" Cafeteria—because economy, dependability and lasting endurance are fundamental qualities of "Van" Equipment. Any "Van" user (there are thousands) will tell you why!

Our Engineers will gladly show you how a "Van" Cafeteria will meet your needs. Or, if you require replacements, how to fill these most advantageously. There is no difference in cost. You can judge for yourself the difference in calibre.



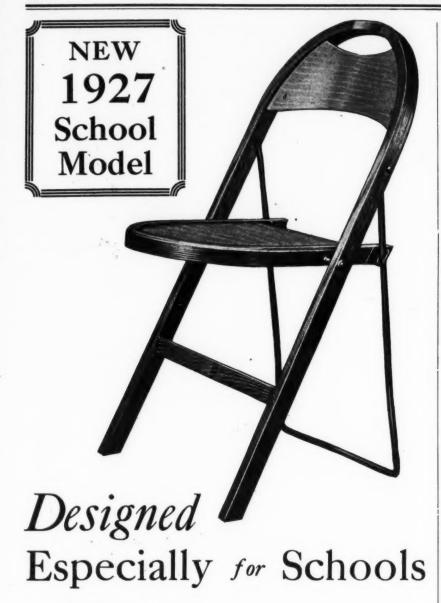


CHICAGO LOUISVILLE DETROIT



Upper view is of the attractive "Van" Cafeteria counter in the Kirby-Smith High School, Jacksonville, Fla.

Left, a view of the dining room and exterior of the Kirby-Smith High School, Jacksonville, Fla. "Van" Cafeteria Equipment, of course.



- 1. Low price
- 2. Surprising comfort in 1927 model
- 3. Rigid construction—that stays rigid
- 4. Repairs almost nil after years of service\*
- 5. Fast handling
- 6. Gets more chairs in given area

ROWS of Stakmores may be placed closer together than ordinary folding chairs because there is no cross bar joining the rear legs to interfere with leg space. Hence more students in less space.

1200 Stakmore chairs were removed from the floor of the Public Service Auditorium in Newark, N. J., and stored away in 9 minutes.

The new 1927 Stakmore chair is built for comfort. No twisting about to fit it—it fits you, due to a clever trick of retilting the back and seat. A Stakmore flips open, flips shut, in an instant—quietly. Built rigid—and it remains rigid.

\*A New York steamship company put Stakmore folding chairs on one of its excursion boats (the hardest possible wear) and cut its repair bill from \$800 a year to \$15.

The new 1927 Stakmore Special is extremely low in price.

This Stakmore Special is a chair that will revolutionize 1927 School Folding Chair Equipment.

Let us send you a sample chair to prove our claims. Address the Stakmore Co., Inc., Dept. E-9, 200 Madison Ave., New York City.

Stakmore folding furniture carries this trade mark.





## All Six

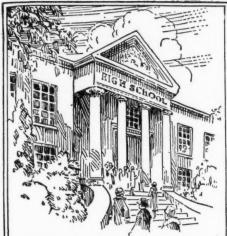
All six of the bony rest bearings help support the weight of the body when one sits in a Derby Correct Posture Chair, the seat of which is made in accordance with the Thompson correct seating patents. The customary chair seat permits only two of these rest bearings to come in contact with the seat surface.

By holding the sitter back in the chair seat, the Derby posture seat makes continuously effective the proper lumbar or back support of the chair. The customary seat, by permitting, in fact inviting, the sitter to slump forward, renders ineffective any back support whatsoever.

Derby alone can manufacture under the Thompson correct seating patents. Since correct posture is claimed for so many types of school equipment today, we ask that Educators carefully investigate their proposed seatings, seeking the advice of competent orthopedic surgeons.

## P. DERBY & Co. INC. Chairmakers for 83 years GARDNER, MASS.

New York City, N. Y. One Park Avenue Boston, Mass. 197 Friend St.



## What Advanced "American" Models Offer High Schools

The Adjustable Universal No. 134 and the Adjustable Universal Tablet Arm Chair, are specially adaptable for high school use. They permit of flexibility in seating arrangements. Aid socialization. Promote student individuality. Sturdy, attractive and economical.

### Note These 4 **Important Features**

#### 1 Hygienically Correct

Properly designed back support. Seats not too high or too deep (front to back). Proper support above hips and below shoulders. All fatigue eliminated by avoiding harmful strains and pressures. Greater comfort. Muscle and nerve strain eliminated. Readily adjustable to give correct support for back. Good posture made certain. Conducive to vigor, permanent health and proper physical development.

### 2 Mobility

Light in weight. Smooth, frictionless floor contact. Built in one unit. Only 4 points of contact with floor as compared with 8 points in usual equipment. 40% less floor space required than tables and chairs. Accessible from both sides. Ample knee space underneath top. Perfectly balanced—can not tip. Durable... yet attractive. Genuine DuPont Duco Lacquer on wood parts. Ball glides on legs of solid milled steel. Easy moving without wear on floor. Suitable for effective group study and recitation. Permitbetter lighting arrangements. Ideal for socialized activities without sacrificing orderliness and efficiency.

### 3 Adjustability

Adjustable for any height. Specially adaptable for high schools. All leg dangling eliminated. Both desk and seat adjustable. Slouchy positions become uncomfortable. Adjustments are simple and can not be manipulated by pupils.

#### 4 Swivel Seat

Permits of ease, quietness and orderliness in entering and leaving seat. Sliding, crowding, bumping of knees eliminated. A protection to the cyes. Seat may be turned away from glare to any effective light. Makes possible facing teacher or blackboard without sacrificing erect normal posture or back support of chair. Helpful for socialization. Swivel limited to swing of 60°. This eliminates whirling about or undue temptation to communicate with neighbor. Silent, velvety movement. Cushioned stop. Nothing to work loose . . nothing to deteriorate,



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"HE "American" mark on school seats, and seating satis-I faction always have been synonymous. Now, two advanced "American" models assure the same degree of satisfaction for High School use. Perhaps more important to buyers of school seats is the organization behind those models.

Years of service and experience alone mean little. But when translated in terms of a half century of vigorous growth and application to school seating, they point to perfection in every model. Superior performance. Complete satisfaction to buyer and user alike.

This coupled with thorough Research, exacting Experiment and Craftsmanship has created school buyer confidence. A reputation which concedes the "American" organization leadership in high school seating.

Write for Catalog S125

High School Advisory Service Free

The "American" organization maintains a Research Department and Advisory Service for the benefit of those who are confronted with seating problems. Without obligation to you they will be glad to submit seating layouts and make recommendations for maximum seating efficiency. Simply write this department and outline your problem. This service costs you nothing.

American Seating Company 14 E. JACKSON BLVD. CHICAGO, ILLINOIS



53 Distributors

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Recognized Authorities in High School Seating.

## THE LARGER INSTALLATIONS OF FOLDING CHAIRS THIS YEAR WERE "ROYALS"

4642 to Houston Schools

2400 to Washington, D. C. Schools

2400 repeat order to Washington Schools

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NOTE SCHOOL SUPPLY HOUSES!

On Folding Chair lettings show and bid on "ROYALS". You have the best chance of getting the business. Royal Folding Chairs are the STRONG-EST. They FOLD FLAT, DO NOT TIP, and ARE COMFORTABLE despite their LOW PRICE. They are attractively finished in the finest walnut enamel.

Write for sample and prices—no obligation.

### ROYAL METAL MFG. COMPANY

"METAL FURNITURE SINCE '97"

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## Viking All-Steel Indestructible Folding Chair

A superfine folding chair built to withstand the rough treatment to which it is subjected in school use.

The "Viking," made of 20 gauge steel throughout, is fireproof and cannot be bent or sprung out of shape. It cannot tip, sway, squeak, or rattle, and its Ball Feet make it noiseless and prevent scratching of the finest floors.

The restful seat and the inclined back insure perfect comfort which is not to be found in any other folding chair.



Well Worth Your Time to Investigate

Viking Indestructible Folding Chairs will prove to be a valuable asset to your school. They are made in four rich finishes, Olive-Green, Gold-Bronze, Mahogany, and Walnut, baked on to insure their permanency. All four designs are suitable for the finest surroundings and can be finished in plain steel, fibre, or full upholstered seat.

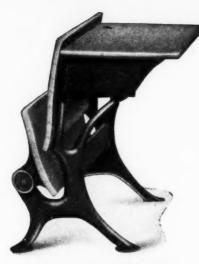
The "Viking" is easily adjusted and is just as easily stored away. Constructed so as to fold perfectly flat, they can be piled or stacked without slipping or falling.

MAPLE CITY STAMPING COMPANY,

PEORIA, ILLINOIS



MOVABLE CHAIR DESK. Three Adjustments. Rigid, Non-Vibrating Top.



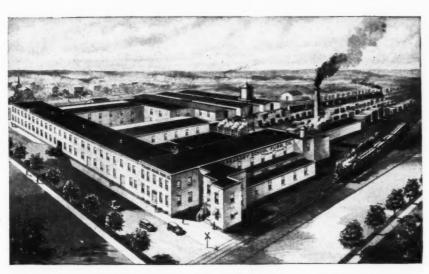
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SANITARY ADJUSTABLE DESK Adjustable Seat and Top. Semi-Steel Standards.



OPERA CHAIR No. 600.



THE HOME OF PEABODY PRODUCTS



OPERA CHAIR No. 700.

School Office Classroom Furniture

The home of Peabody Products is a modern plant, operated by an efficient industrial family. Twenty years' experience in the manufacture of high grade School Furniture. Every article sold with a guarantee to give complete satisfaction in every respect. "Peabody" service will please you.

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North Manchester, Indiana

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FOLDING CHAIR No. 51. PATENTED JAN. 18, 1910.

Form Fitting 5-Ply Veneers.



TEACHERS' DESKS-SEVEN PATTERNS. Built with Solid Oak Tops.

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NON-TIP FOLDING CHAIR No. 70. Folds as Flat as a Board.

PATENTED NOV. 12, 1918.



## Endurance Is Built Into Them

The day is past when buyers of school office, library, and directors' tables ask for "just a table." Informed buyers now know that there is a vast difference between ordinary office tables and

## Samson Tables

The difference is in the infinitely better method of Samson construction. They are built strong, rigid, beautiful, and for a purpose. That purpose is to last longer than any other table made. For that reason the underside of Samson table tops, all of which are of five-ply stock, have anchoring cleats with heavy screws to prevent warping and to hold rails and drawer slides rigidly in place. Legs are "Taper-miter-joint-boxed," to give them the same thickness of stock through the whole leg. Samson office tables don't warp or wobble. Selected wood and scientific building makes them endure for a lifetime.

When buying your next office or directors' table be particular to ask for a Samson. Look for our trade mark on the table. It is your Guarantee of Quality and Workmanship. Ask us to send you further details.

## **MUTSCHLER BROTHERS COMPANY**

NAPPANEE

INDIANA



## ELGIN SCHOOL TABLE

## **60 Years of PROGRESS**

More Sanitary Rooms for First and Second Grades

M OST schoolrooms are veritable traps for the collection of dust, dirt, and their inherent germs. The stationary, screwed-to-the-floor desk is a breeder of germs, has countless cracks and crevices in which dirt lodges permanently. The only way to get such a room perfectly sanitary is to unscrew the desks and seats from the floor. This, of course, is impractical.

With the ELGIN SCHOOL TABLE the schoolroom will be kept spotlessly clean. When the children leave school at night they place their little chairs on top of their tables, thus permitting the janitor to sweep the floor perfectly clean and to mop it or scrub it with soap and water. The tables are movable, so that every inch of floor space can be reached and cleaned. The smooth table tops are easily dusted. There is no hiding place for dirt and germs.



### RINEHIMER BROS. MFG CO.

ESTABLISHED

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SINCE 1868

DEPT. OF SCHOOL FURNITURE

## MANUAL TRAINING BENCH No. 280



GLANCE AT THIS NEW PATTERN A will show that the combination of various sized drawers and cupboard makes an unusually practical bench. Notice, especially, the small drawer which is intended to hold nails, screws, small tools, etc., which so easily become misplaced when kept with the larger tools. Being able to immediately lay hands on these small but necessary items, will be the means of saving a great deal of time, thereby promoting efficiency. Also, notice the large cupboard, which will hold such tools and materials which can not be kept in the general or three private drawers. Bench is equipped with our Abernathy Rapid Acting Roller Nut Vise No. 70D on front, adjustable stop and dog.

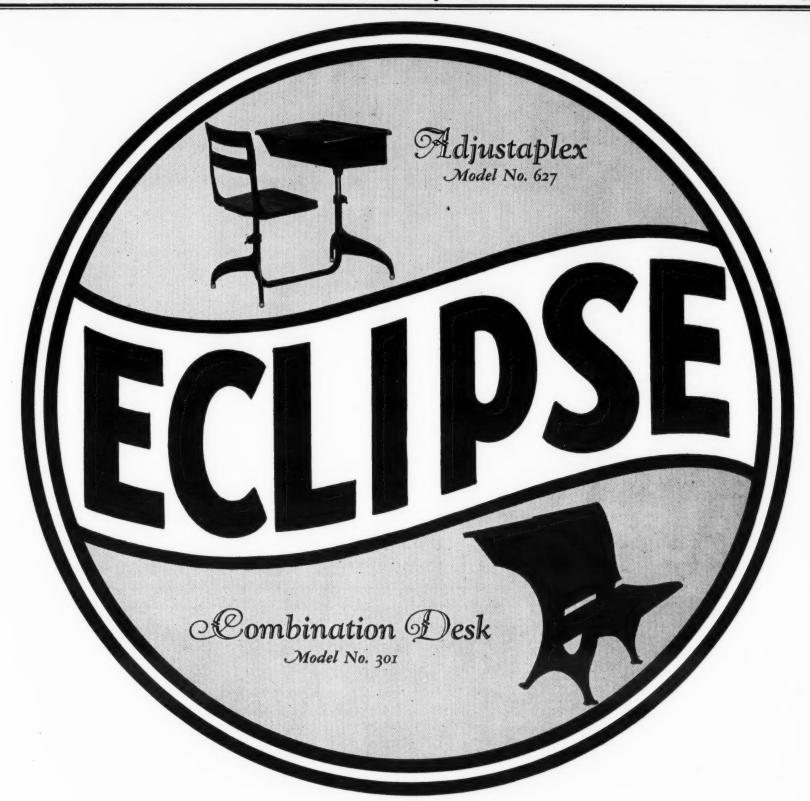
#### C. CHRISTIANSEN

Manufacturer of this line since 1898

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## "The Mark of Quality School Furniture"

A modern and complete line of school furniture is offered for your approval and selection. Built into each piece of "Eclipse" furniture are the modern improvements so essential in school equipment. The "Eclipse" line is most complete, a desk and chair for every need. Write for a complete catalogue and description of our entire line.

There are vast differences in school furniture—see "Eclipse," know "Eclipse," buy "Eclipse," and be assured of the best.

## The Theodor Kundtz 6. Cleveland Ohio



## THE "ARLO" ADJUSTABLE PEDESTAL DESK

The "Arlo" Adjustable Pedestal Desk is our latest contribution to modern hygienic schoolroom seating. A beautiful desk, both in design and finish, it is absolutely sanitary exceedingly well adapted to the varying needs of any classroom and guaranteed to withstand the strenuous requirements of every type of classroom service.

The pedestal is made of semi-steel, constructed to give greatest strength at the points of greatest strain. The broad, massive base is cup shaped and when screwed to the floor will never pull loose.

The "Arlo" Adjustable Pedestal Desk will last a lifetime; has steel sides and back and the top is made from maple or birch, finished in Arlo Brown (American Walnut).

Adjustments are simple and easily made. Book box chair seat are independently adjustable. This is a distinctive feature and makes it possible to adjust "Arlo" desks to meet the individual requirements of each pupil.

The "Arlo" Line includes The Arlo Adjustable Pedestal Desk with Study Top, The Arlo Non-Adjustable Pedestal Desk, and the Arlo Pedestal Tablet Arm Chair.

Descriptive literature and prices on request.

## **Arlington Seating Company**

Office and Factory

Arlington Heights, Ill.

Flexibility of adjustments assures each pupil being properly fitted, insuring correct posture and real comfort.



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HUNDREDS more school boards every year are standardizing on U. S. Inkwells for replacements as well as standard equipment. They know from experience that this inkwell costs little, works well, and outlasts two or more ordinary inkwells.

The U. S. Inkwell is dustproof and noiseless. It does not tempt pupils to waste time.

U. S. Inkwells can pass your most rigid examination. Check the answers to these questions:

Is it easy to install?
 Yes, just drive in three tacks.
 Will it fit our desks?
 Yes, it fits desks of any size.
 (Made in two sizes—Sr., Jr.)

Is it quiet?
 Yes, the lid does not rattle nor creak.

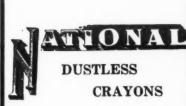
Is it economical?
 Yes, because of low purchase cost and unusually long life.
 Has it any special

advantages?
Yes, the tight-fitting lid keeps out dust and prevents evaporation. Pupils cannot tinker with it as easily as with the average desk well.

SEND FOR FREE SAMPLES TODAY

U. S. Inkwells are made and furnished with two size wells, one twice larger than the other. Write for samples of each so that you can see why it is much worth while to specify U. S. Inkwells—and determine which size best meets the needs of your school. You can get U. S. Inkwells from any school supply jobber or direct from our factory. Write today for prices and samples.

U. S. INKWELL COMPANY
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Free of grit from tip to tip NATIONAL CRAY-ONS respond perfectly to every stroke.

Being uniform in strength, every piece of NATIONAL CRAYON will withstand a firm grip of the fingers without danger of breaking or crumbling.

The dustless feature, combined with uniformity in all other respects, makes NATIONAL the ideal crayon for the classroom.

Your regular school supply dealer can serve you. If not, write direct.



THE NATIONAL CRAYON CO.





AW Non-Colliding Chair Equipment incorporates entirely new ideas in school seating — modern principles that offer many advantages over past methods. Its tangible merits recommend it particularly to school officials who are accustomed to select their equipment on the basis of efficiency and economy.

The Law Non-Colliding Chair is particularly adapted for use at the teacher's desk and for students' uses in connection with biology, bookkeeping, chemistry, domestic art, domestic science, general science, physics, and typewriting tables. In fact it is adaptable to any desk or table which provides knee space for the occupant of the chair.

A particular feature of the Law Non-Colliding Chair is an oscillatory and swiveling mechanism, so designed as to absolutely prevent contact between the chair and the desk no matter in what position the chair may be. At the same time, it permits of the utmost freedom of movement. This mechanism, although of comparatively simple design, is so sturdily constructed that it will last a lifetime. The chair is supported by a pedestal at the center of gravity, which carries the weight of the occupant and which relieves the table or desk from all strain.

The Law Non-Colliding Chair embodies fourteen distinctive points that will prove to be of more than ordinary interest to school executives. These fourteen points together with descriptive literature and full information will be sent promptly upon request, and without obligation, of course.

Progressive school equipment Dealers in territories where we are not already represented will be interested in securing the details of our exclusive franchise.

O. B. LAW EQUIPMENT COMPANY KENT, OHIO



The Improved "DETROIT CHAIR-DESK" (as illustrated) is highly praised by Authorities on Modern School Equipment.

The entire "DETROIT" line consists of High School Single and Double Unit Tables, Tablet Arm Chairs, Kindergarten Tables and Chairs and is worthy of serious consideration.

Detailed information on the complete line will be furnished on request.



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General Offices and Factory, Holly, Mich.



## Vacuum Electric Blackboard Eraser Cleaner



A highly efficient, serviceable piece of equipment which should be in every modern school.

Cleans erasers thoroughly, quickly, and with little labor—at low cost of operation.

Has exclusive, individual features which make it superior:

Brush revolving at moderate speed, acts as a beater, dislodging crayon dust and cleans more thoroughly than stationary brush—yet, does not wear and tear eraser like rapidly rotating brush attached directly to motor shaft.

Indirect drive of brush prevents overloading motor.

Cleaning table level is adjustable to compensate for wear in brush—thus assuring utmost service from brush and making replacement infrequent.

Oil-less bearings are used, excepting in motor—and latter requires very little attention.

Bag of generous size and special vacuum cleaner material increases suction efficiency of cleaner.

OPERATES FROM ANY LIGHT SOCKET— DEPENDABLE — GUARANTEED OF GENUINE UTILITY — NOT A TOY

May be had with Chalk Tray Cleaning Attachment.

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Floor Brushes Liquid Soaps Soap Dispensers Paper Fixtures Erasers PALMER CO.
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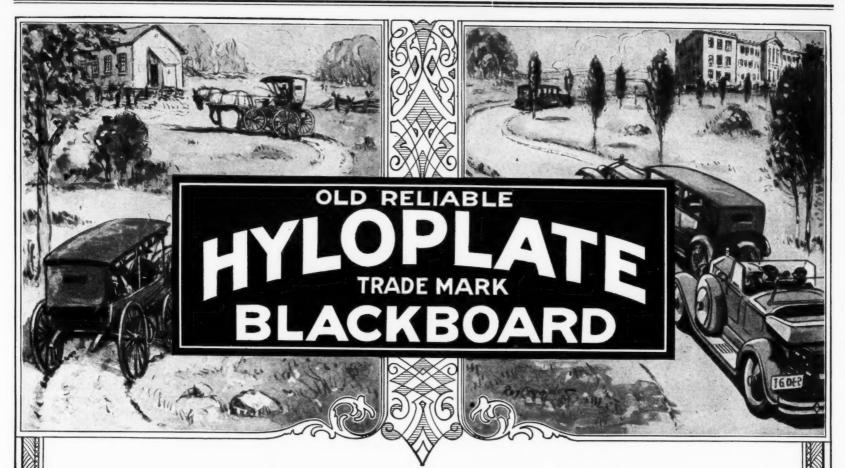
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In schools throughout the United States ... and in 22 foreign countries ... Old Reliable Hyloplate is the most popular of Blackboards. Millions of square feet of this economical, quality blackboard have been installed and are serving the school children of the world today!

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## Stacks Flat for Convenience of Storage

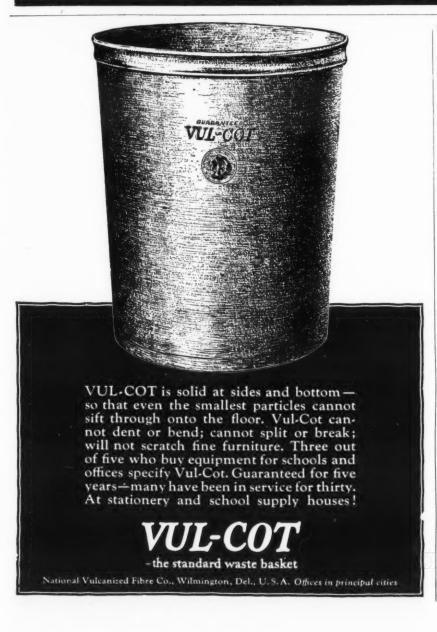


THE compactness with which the Standard Non-Tipping Chair folds represents economy, in that very little floor space is required for storage.

Many advanced features only to be found in the Standard Chair Line developed through our years of exclusive chair manufacturing will add many years of service to your seating problems.

Standard Folding Chairs are made in a variety of styles, write for descriptive catalogue and prices.

Standard Manufacturing Company, Cambridge City, 1020 S. Foote Street Indiana, U. S. A.





## With the Famous Moeser Extended Arm Rest

# "We've tried them All "We've tried the best" This is the

## A REMARKABLE LETTER FROM A WELL-KNOWN SUPERINTENDENT

W. J. HAMILTON, Superintendent of Schools, Oak Park, Ill., wrote:

"The arm rest on the desks is the best thing that we have found to insure erect posture, and the pupils assure us that the seats are more comfortable and more convenient for desk work through the addition of this arm rest. Our Board is placing a large order for further installations of this type desk.

"In Oak Park we have tried out practically all the various makes of school seats and find that there are several excellent models on the market. However, it is the judgment of our building department, our teachers, and interested parents that the National School Equipment seating types meet our requirements the best of any. The workmanship is of the very best, quality of wood and materials is not equalled by any other makes that we now have, while the hygienic physical features are the best of any seating that we have in stock."

## All These Advantages

With the Moeser Arm

- -Available working surface more than doubled.
- -Full support for the back while writing.
- —Arm supported while writing, resulting in better penmanship and less fatigue and nervous strain.
- —Correct posture, encouraged by this Arm, insures protection from direct and reflected glare on the eyes.
  - -No necessity to twist body or incur strain on the spine.

The efficiency of the teacher's work depends upon the degree of intelligent reciprocation on the part of the pupils—

And that reciprocation is determined, to a remarkable degree, upon their comfort.

The Moeser Supporting Arm Top can be furnished with any National School Desk.

For complete information regarding the Moeser Extended Arm on School Desks, or concerning any other design of School Desk, write for circulars.

#### THE NATIONAL SCHOOL EQUIPMENT CO.

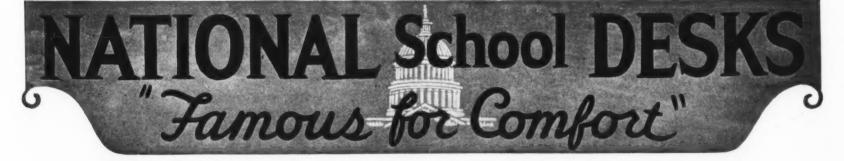
MANUFACTURERS OF COMPLETE SCHOOL EQUIPMENT PORT WASHINGTON WISCONSIN

### A Wonderful Finish That Does Not "Scratch"

We have developed a remarkable finish, by which the tannic acid in the wood is brought to the surface, bringing with it the natural color of the wood. The finish is developed within the fibre, consequently it cannot wear off nor rub off.

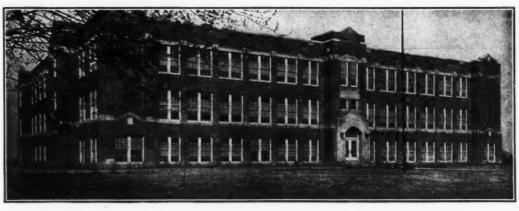
It has a richer, deeper color and a velvety "feel." It is both "hard" and "elastic"; also transparent. It is very pleasing and will harmonize with any interior finish. Woods treated by this process wear longer and retain their original finished appearance longer.

Ask us about it.





School Cafeteria equipped with Gunn Lino Tables



Lincoln Consolidated School-Ypsilanti, Mich. Warren Holmes-Powers Company, Architects

## GUNN "LINO" Desks

for Teachers

## "LINO" Tables

for Cafeterias are now used in many of our

### FINEST SCHOOLS

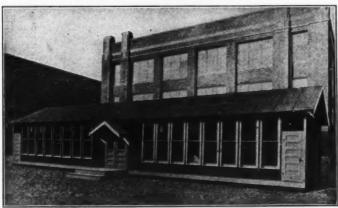
No Breakage of Tops

Quiet and Pleasing

Sample of Top and Full Particulars on Request

THE GUNN FURNITURE CO. GRAND RAPIDS, MICH.

## GOLD BOND PORTABLE SCHOOLS



## 12 Foot HIGH WALLS

Flat Ceilings. Interior Walls and Ceilings Sheet Rock Plasterboard.

> Buildings Comply With All State Requirements Built Complete at Our Factory.

Your Janitor with 4 Common Laborers and our Illustrated Instructions can erect them.

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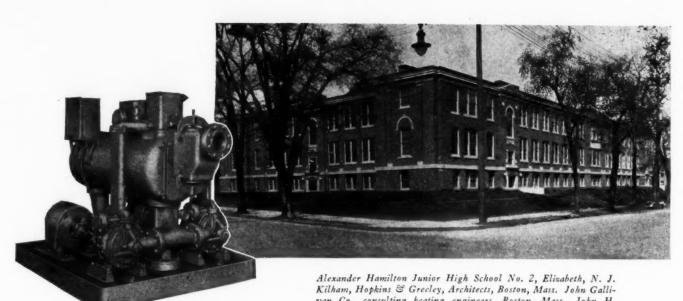
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## School Board Journal

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Thus, time and again, we have asked our readers to tell us what they like about us, and what they don't like, what they believe we ought to emphasize and what we ought to omit. In selecting manuscripts and in writing our leaders, we are constantly guided by what we know our readers need and want most.

The editor of this journal served for many years as a member of an important school board, and is thus reasonably experienced in school administrative procedure, but with constant changes in the field of popular education, new situations, new methods, and problems arise. He must practice alertness and circumspection, and keep in constant touch with the newer problems that arise and the solution that must be applied under present-day conditions.

WILLIAM GEORGE BRUCE, Editor.

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Editorial Material—Manuscripts and photographs bearing on school administration, superintendence, school architecture, and related topics are solicited, and will be paid for upon publication. Contributions should be mailed to Milwaukee direct, and should be accompanied by stamps for return, if unavailable. Open letters to the editor must in all cases contain the name and address of the writer, not necessarily for publication, but as evidence of good faith.

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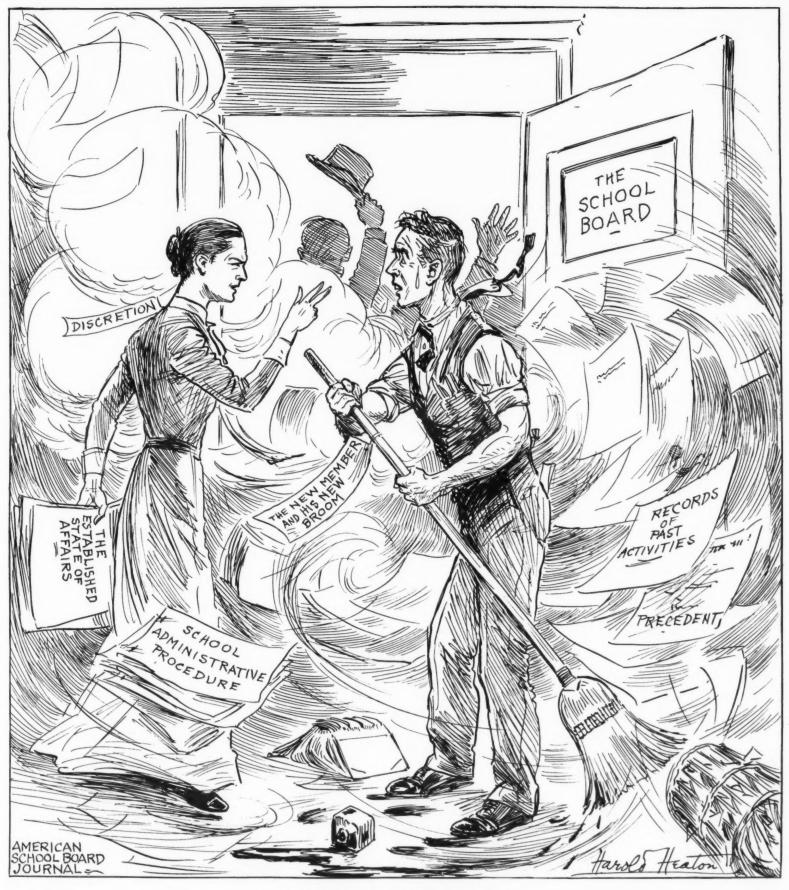
# THE AMERICAN Sthool Bourd Journal

Founded March, 1891, by WILLIAM GEORGE BRUCE

Volume LXXV, No. 4

OCTOBER, 1927

Subscription, \$3.00 the Year



Seeking Fame by Kicking Up Dust.

### If I Had My First Year as a Superintendent to Do Over

Peter Ronalson

In the first place, I should not try to make over the entire school the first week, the first month, or even the first year. I should recognize the fact that my predecessor must have had some modicum of common sense and knowledge of school administration and until I had evidence to the contrary I should assume that he had been performing his duties capably.

The new superintendent has not been in town very many hours before he comes in contact with the people who are aching to tell of the old superintendent's mistakes. The woman who was jealous of the superintendent's wife, the man whose daughter did not get a job on the teaching force, the family whose son did not graduate, and all the rest of the inhabitants whose scalping knives were ground to a razoredge for the out-going school head are perfectly willing to tell the in-coming man of the shortcomings of the former administration.

Their information might be instructive and profitable if these good people would come out in the open and tell their real reasons for wanting a change of superintendents. As a rule the reasons they give and the real reasons for their attitude have no perceptible degree of similarity. Mrs. Johnson does not broadcast the disappointment she felt when Mrs. Old Superintendent defeated her for the presidency of the Wednesday Afternoon Literary Club. If we are to believe Mrs. Johnson's story, she wanted Mr. Old Superintendent to leave town because he allowed the children a scandalous amount of freedom. Mr. John Schmidt is very reticent about discussing the failures of John Junior to get along in school, but it requires no urging to induce him to discuss at length the weakness of the superintendent in supervising his teaching force. I should be careful not to be stampeded into a sudden reversal of my predecessor's policies by old wives' tales of his errors.

Accepting Useful Help Neither should I go to the opposite extreme of disregarding all suggestions. Board members have often seen years of service on the school board, and in those years they have picked up a great deal of practical knowledge of the general principles of school administration. They have seen superintendents come and go. They have had an opportunity to observe that the philosophy and policies of some of these superintendents enabled them to get along better than others.

Often there are other people in town who have the welfare of the schools at heart and are anxious to start the new superintendent right. When these folks, sincerely anxious to have the new superintendent make good, come to him with advice, he should welcome the opportunity to profit by their experience and observation. I should make a note of every suggestion such people might make to me, but I should defer action until I had an opportunity to study the community for myself, had seen the school in active operation, and had found time to form a judgment of my own.

As to powers and prerogatives, I should not be too jealous of my school board. No matter what my educational equipment might be, I should not be dead sure that I knew all there was to know about running a school system. The school board in a small town employing a young superintendent, who is merely serving his apprenticeship as it were, is often forced to take into its own hands matters that the board in a larger town, able to afford a mature man of experience, leaves entirely to the discretion of the superintendent. So if I were starting over.

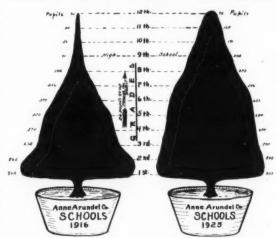
even though my board might assume to itself some of the powers and the duties that the professors of educational administration say belong entirely in the province of the superintendent, I should not fret overly much.

Responsibility Comes to the Able Man

Board members are generally busy people with many interests to occupy their time and attention. It is a rare board that is not willing to shift its responsibilities to its superintendent as soon as he has convinced it of his ability to assume them. If a superintendent who has been in the community long enough for the school board to know his caliber complains that his board does not give him enough rope, the probabilities are that the fault lies with himself. In school administration as in every other phase of human endeavor, responsibilities gravitate to him who shows his ability to take care of them.

I should not try to play Mussolini with my teachers, especially the older teachers. Even though they might be doing things in a way that would seem antiquated and mistaken, I should be patient in bringing about changes. Many an old teacher is of more value to the school and to society, happy in her time-worn old familiar rut, than she would be if compelled to try to adapt herself over night to the new. The superintendent who would have the old teacher change her ways must have the time and patience to first change her point of view. After a while, a tactful suggestion here and a thoughtprovoking question there may work wonders. Old teachers can be led into doing much, but as many a young superintendent has learned to his sorrow, there is precious little that they can be forced into doing.

If I had it to do over, I should treat the most trifling detail of my work with the utmost respect. To be exact, there are no trifles in the work of the school superintendent. Every decision he makes affects in some way some mother's child, and what relates to her child never looks



HOW ONE SCHOOL SYSTEM HAS GROWN IN HOLDING POWER.

A clever graphic representation of the holding power and growing efficiency of a school system is presented by Mr. George Fox, county superintendent of schools of Anne Arundel county, Maryland, in his report for the school

year 1926.

Mr. Fox represents the school system as a growing tree. It will be noted that the tree in 1916 encompassed all the children in the first and second grades, but that its upper branches had become extremely slim at the point representing the eighth grade. Only a few children graduated from the schools and still less entered the high school and graduated from it.

The same school system in 1925 showed a loss in the first and second grades due to the fact that there has been no increase in population, but in fact a falling off in the total school census. The shape of the tree, however, shows a healthy change and a vastly larger number of children are held through the eight grades and attend high school. The upper branches of the tree are flourishing and well-filled.

In 1916 the average school child in Anne Arundel county schools was 10 yrs. 7 mos. old and was registered in the third grade. In 1925, the average child was 10 yrs. 4 mos. old and was registered in the fourth grade—a gain of a full grade and a reduction of three months in the average age.

like a trifle to a mother. There is many a home in the land where the snap judgment of a village school superintendent on a petty detail of school government causes for the time being more furor than the decision of the president of the United States in a question of international importance. I have seen trifles of no apparent consequence in the beginning precipitate school rows that rocked the entire community before they were ended.

Perfecting Public Performances

Whenever the school took part in a public performance, I should be particularly careful to see that no detail were overlooked. Many people never visit school and form their opinion of the school almost entirely from what they see at public entertainments. If the class plays, commencement programs, and Christmas entertainments go off well, they decide that everything is all right. If these public appearances of the school show careless preparation, they form the conclusion that everything is all wrong. Very few people have an opportunity to observe the fine work that the school is doing in teaching silent reading say, but slip-shod coaching of the senior play is revealed for the whole town to see.

Nowhere is eternal vigilance more imperative than in overseeing the details of the high school commencement exercises. Commencement is the one time in the year that the attention of the entire community is centered on the school. as it is at no other season. To the families of the graduates, the high school commencement often ranks in importance with a wedding.

The ordering of invitations, the correct engrossing of diplomas, the selection of a speaker, the preparation of the musical program, the coaching of speakers from the class if there are any, arrangements for seating and ushering, every detail that contributes to the dignity of the occasion and the pleasure of the graduates and their parents must be provided for. Above all, if any of the seniors were not going to receive diplomas, I should make sure that the parents of those students would know their exact status months before commencement day.

Scrupulosity in Business Matters

I should be scrupulously careful in handling funds of school organizations. Few accusations that can be brought against a school man are more damning than that of dishonesty, and few are harder to refute if a man does not have clean-cut evidence in black and white. I should never deposit a cent of school money to my own personal account. I should see that the receipts of every school entertainment were carefully audited by some responsible person besides myself, and I should see that there were receipts or vouchers on file to account for every expenditure made from any school fund.

Likewise I should try my very hardest to see that all school property received the same careful attention and conservation that the prudent business man gives his property. Many a school board is parsimonious in providing supplies and equipment, because it has seen equipment which it has bought in previous years ruined, wasted, and lost through the negligence of superintendent, principals, and teachers.

In the management of my own personal business, I should see that I followed sound business principles. The leading members of the school board are almost invariably good business men, and they cannot be expected to entrust their leadership of their children and the spending of their taxes to a man who does not show any grasp of business fundamentals. However brilliant he may be intellectually, a school superintendent is not going to go very far if he is unable to meet his financial obligations as they become due or is habitually overdrawn at his

# Public-School Progress of the States

Ernest C. Witham, Wilmington, Del.

Comparisons are not always well received, and yet everything is relative; but the comparisons in this article are meant to be helpful and constructive. One of the main points to be shown is that the difference between the best and the poorest states in education, may not be as great as some would lead us to suppose. Towns and cities within states, probably differ more than whole states. Also individual schools within cities differ very greatly in the amount and quality of real education which they produce.

In the August issue of the American Educational Digest, the author described a method of finding the Index of Holding Power, to be used for measuring the progress of city, county and state school systems. The arguments for the method are not repeated here.

In 1920, the Russell Sage Foundation published a monograph by Leonard P. Ayres, in which he gave an index number to the states, apparently supposed to represent the educational standing of the states. The ten points Ayres used are as follows:

1. Per cent of school population attending school daily.

2. Average days attended by each child of school age.

Average number of days schools were kept open.

4. Per cent that high-school attendance is of total attendance.

5. Per cent that boys are of girls in high school.

6. Average annual expenditure per child attending.

 Average annual expenditure per teacher employed.

8. Average annual expenditure per teacher employed.

9. Expenditure per pupil for purposes other than teachers' salaries.

10. Expenditure per teacher for salaries.

Of these ten components, five are nonfinancial and five are financial.

In 1925, Frank M. Phillips published a monograph called the "Educational Ranking of States by Two Methods." This was later supplemented by "Educational Rank of the States, 1924." In this study the Ayres method was used and also a plan devised by Mr. Phillips in which he also used ten points, some of which were like those in the Ayres method.

The ten points selected by Phillips for ranking the states are as follows:

1. Percentage of illiterates ten years of age

2. Ratio of number of children in average daily attendance to number 5 to 17 years of age, inclusive.

3. Percentage of attendance in high school.

4. Average number of days attended by each child enrolled.

5. Average number of days schools were kept open.

6. Ratio of number of students taking normal training courses to number of teaching positions.

7. Percentage of high-school graduates continuing their education.

8. Total cost, excluding salaries, per pupil in average daily attendance.

9. Average annual salary of teachers, principals, and supervisors.

10. Total amount expended per child of school age.

Phillips gave less emphasis than Ayres did to financial items. There are seven nonfinancial

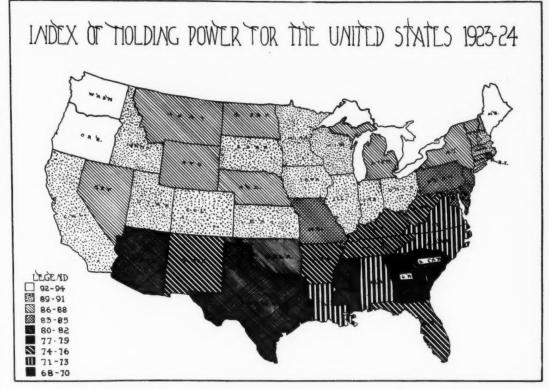


FIG. 1. INDEX OF THE HOLDING POWER OF THE SEVERAL STATE SCHOOL SYSTEMS.

and only three financial components in the Phillips method.

The general scheme followed by both Ayres and Phillips is similar; namely taking ten components and by either averaging or ranking them, finally arrive at one figure which is supposed to represent the comparative rank or standing of the states.

What automobile industry would measure its success on ten components such as these or any others?

1. Percentage of material spoiled in the process of manufacture.

2. Average number of automobiles finished per day.

· 3. Total cost excluding salaries, per automobile completed, per day.

4. Average annual salary of workmen, foremen, and managers.

5. Total amount expended per automobile from start to finish.6. Average number of days the factory was

in operation.
7. Average number of days worked by each

man on the payroll
8. Ratio of the number of students taking apprentice training courses to the number of foremanship positions.

9. Percentage of illiterates among the employees.

10. Percentage of employees who own their own homes.

Certainly these points are pertinent to the automobile business.

How does the automobile industry measure its success? By one item only, namely—profit and loss. This may not be the last future word in business success, but up to the present time it is the final measure of all business.

Why can we not figure profit and loss in education?

Undoubtedly we can, and the way to do it is via holding power. A few details will have to be worked out, in order to get not only uniformity, but exactly similar results from all situations. This can be done rather easily, and incidentally bring order out of our present more-or-less chaotic condition of statistics due to inaccuracies and lack of definitions.

At the present stage of our development of society no very complicated data can be collected so that there can be even reasonable assurance that it is correct. The federal government does the very best it can in securing reliable data, but it must rely upon all the states and even the towns and cities within the states for information, and hardly two of the states are following the same plan of child accounting.

The state should probably be the unit in school matters but if there is to be uniformity of data secured, then all the states must follow the same plan, or in other words, a federal plan of child accounting. Most state reports give the number of pupils under each grade of instruction, but some do not. In such cases the information is far from being satisfactory. There is no item that seems to be common to all reports, but the distribution of pupils over the grades seems to be one of the most general so that it could be easily made universal.

The source of my information was largely "Statistics of State School Systems" prepared under the direction of Frank M. Phillips chief of the Division of Statistics of the Bureau of Education. In some cases the data used was obtained directly from the states. While there may be slight errors in the data used, it would appear that they must be small, because the correlation (using the product-moment formula) between two sets of indexes of the 49 states and the District of Columbia, with a year between, was .95.

Standing of States-Highest and Lowest

	Ayres	Sum of Ranks by	Holding- Power
Highest	Indexes 94.5	Phillips 132	Indexes 92.2
Lowest		418	69.0
Difference		296	23.2

Phillips ranks the states and the District of Columbia from 1 to 49. To some, ranking the states does not seem exactly desirable and not of much real value. An index of the states is much better, because the indexes enable one to note the progress in school systems from time to time, also to compare standing with other school systems.

In the following table the standing of the states by the three methods is given. Also the

ranks of the states by the three methods. Little store is placed upon the exact ranks by the writer of this article.

Figure I is a chart showing the public-school standing of the states by three methods, made up from the foregoing table. The chart interval for Ayres Indexes is .4, and extends from 34.9 to 94.5. The chart interval for the totals of the Phillips Ranks is 2 and extends from 420 to 132. The chart interval for the index of holding power is .2, and extends from 69.0 to

Nine groups of the states have been made according to their index of holding power.

# INDEX OF HOLDING POWER FOR THE UNITED STATES—1923-1924

92-94	Maine, Oregon, Washington.
89-91	California, Colorado, District of Columbia,
	Idaho, Illinois, Indiana, Iowa, Wisconsin,
	Kansas, Utah, Massachusetts, Ohio, New
	Hampshire, South Dakota, Minnesota.

Connecticut, Michigan, Montana, Nebraska, Nevada, New York, North Dakota, Vermont, 86-88 Wyoming.

Delaware, Maryland, Missouri, New Jersey, Rhode Island, Pennsylvania. 83-85 80-82

77-79

Oklahoma.
Arizona, Mississippi, Texas.
Arkansas, Florida, Kentucky, New Mexico,
Tennessee, West Virginia.
Alabama, Louisiana, North Carolina, Vir-74-76

ginia. 68-70 South Carolina, Georgia.

# NUMBER AND PERCENTAGE OF PUPILS UNDER EACH GRADE OF INSTRUCTION IN SIX REPRESENTATIVE STATES OREGON WASHINGTON

OAGAGOAT	
2248812.	81 3853912.29
16927 9.0	3181810.14
17768	12 3234810.31
1777410.	12 3311610.56
1938011.0	04  3227310.29
16210 9.5	23 28775 9.17
15087 8.0	80 29312 9.34
15132 8.0	62 25925 8.26
12971 7.	40 22691 7.23
9050 5.	15 16334 5.20
7059 4.0	02 11981 3.82
5639 3.	12 10380 3.31
175485 99.	94 313492 99.92
MAINE	NEW JERSEY
1921313.	32 9560416.27
1526410.	58 7018311.94
1526910.	6972911.86
1505410.	43 6699211.40
13895 9:	63 6318310.75
13344 9.	25 56333 9.58
11000	09 47409 0.00

15054	6699211.40
13895 9:63	6318310.75
13344 9.25	56333 9.58
11298 7.83	47483 8.08
11102 7.69	38175 6.49
11873 8.23	32297 5.49
7191 4.93	21383 3.63
5867 4.06	14670 2.49
4842 3.35	11382 1.93
144212 99.88	587414 99.91
177212	00.01
ARKANSAS	SOUTH CAROLINA
ARKANSAS	SOUTH CAROLINA
ARKANSAS 10851621.62	SOUTH CAROLINA 13336728.54
ARKANSAS 10851621.62 6823813.60	SOUTH CAROLINA 13336728.54 7587216.23 6398813.69
ARKANSAS 10851621.62 6823813.60 6347412.65	SOUTH CAROLINA 133367 28.54 75872 16.23 63988 13.69 54965
ARKANSAS 10851621.62 6823813.60 6347412.65 6202512.36 5431010.82	SOUTH CAROLINA 133367 28.54 75872 16.23 63988 13.69 54965 11.76
ARKANSAS 10851621.62 6823813.60 6347412.65 6202512.36 5431010.82	SOUTH CAROLINA         133367       28.54         75872       16.23         63988       13.69         54965       11.76         43018       9.20

7472..... 1.48

5530..... 1.10

501700

The six silhouettes (Fig. III) show graphically the percentage of pupils under each grade of instruction in six different commonwealths. The school system that shows the greater per cent in the grades beyond compulsory education would seem to be turning out a greater quantity at least of the so-called finished product than the system with smaller per cent of pupils in higher grades and high school.

467131

99,95

12120..... 2.59

8580..... 1.83

99.90

When we think of good schools we think of New Jersey, yet the holding power is not as large in New Jersey, according to the information we have, as we would have supposed it to be. Are there some kind of trade or vocational

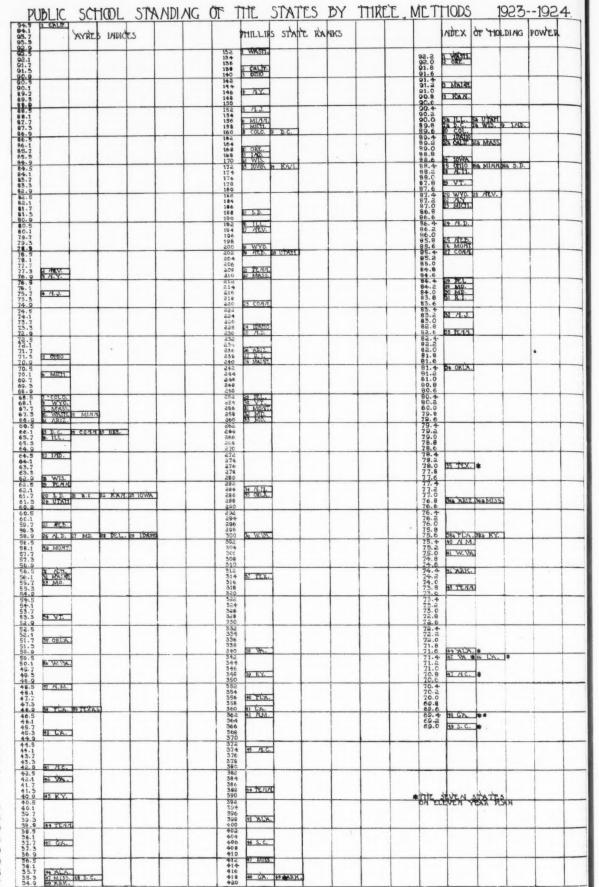


FIG. II. STANDING OF THE SEVERAL STATE SCHOOL SYSTEMS BY THE AYRES, PHILLIPS, AND WITHAM METHODS.

schools taking the older pupils in large quantities, and not reporting them in junior and senior high-school grades? Of course this would make a difference, and this is one of the details suggested which will need to be worked out before comparisons are just.

At present all ratings and comparisons are only tentative. It is also probably true that some of the wealthy states have special difficulties to overcome as well as do their less wealthy and more sparsely settled sisters. Each state more than likely has its own trying problems, and there is probably not a commonwealth in our constellation that at the present time is not making an honorable stride in developing its schools. The big, wealthy states spend great

sums for educational purposes. They do not spend too much, probably not enough; but they have many superior schools and institutions. The great work they are doing is understood and appreciated; but the fact remains that in some of these states, there are a great many children either not in school, or not in the upper grades and high school, and for all children not in school, superior schools are no better than inferior schools.

Regardless of other features such as building, teachers' salaries, professional standing of the teachers, courses of study, administration and supervision, school systems should not rate high unless the percentage of pupils in the upper six grades is high. Quantitatively a system cannot

PUBLIC-SCHOOL STANDING OF THE STATES BY THREE METHODS-1923-1924

Ayres	Dhilling	Holding	Ra	o le	Holding
				Phillips	Power
		71.6	46	45	44
Alabama	1 237	76.8	12	26	.361/2
Arizona		74.5	49	49	.42
Arkansas34.9	2 139	89.2	1	2	.121/2
California94.6		89.7	7	8	.10
Colorado		85.5	14	23	27
Connecticut		84.4	28	29	28
DELAWARE58.7	3 253	89.9	13	9	71/2
District of Columbia	1 161		38		
Florida	2 357	75.7	45	40	$\frac{38\frac{1}{2}}{48}$
Georgia	8 418	69.5	29	48 24	
Idaho	1 228	89.4			11
Illinois	4 193	90.0	16	16	51/2
Indiana64.3	3 169	89.8	17	11	9
Iowa61.4	1 173	88.6	23	13	14
Kansas		90.9	22	14	4
Kentucky40.9		75.7	43	39	381/2
Louisiana		71.4	40	41	46
Maine	4 240	91.2	32	28	3
Maryland58.8	7 258	84.0	27	32	30
Massachusetts	2 210	89.2	9	22	121/2
Michigan70.0		87.0	6	7	23
Minnesota	8 156	88.4	11	6	161/2
Mississippi	0 413	76.8	47	47	361/2
Missouri	8 260	84.2	33	33	29
Montana58.0	2   256	85.6	30	31	26
Nebraska	2 203	85.8	25	19	25
Nevada	9 195	87.4	2	17	21
New Hampshire	8 285	88.3	31	34	18
New Jersey	0 153	83.2	4	5	32
New Mexico48.3	9 362	75.5	37	42	40
New York	6 146	87.3	3	4	22
North Carolina42.8	1 375	70.8	41	43	47
North Dakota	1 230	86.4	26	25	24
Ohio	8 141	88.5	5	3	15
Oklahoma51.4	1 286	81.4	35	35	34
Oregon	0 167	92.0	15	10	2
Pennsylvania	9 209	82.7	19	21	33
Rhode Island	1 238	83.8	21	27	31
South Carolina		69.1	48	46	49
South Dakota		88.4	20	15	161/6
Tennessee		73.9	44	44	43
Texas		78.1	39	37	35
Utah		90.0	24	20	51/2
Vermont		87.8	34	30	19
		71.5	42	38	45
Virginia42.0		92.2	10	1	1
Washington		75.1	36	36	41
West Virginia50.0	301	89.9	18	12	71/6
Wisconsin	35 201	87.5	8	18	20 72
Wyoming	201	01.0	0	19	20

The index of holding power equals 100 minus the sum of the negative deviations from the standards, plus any positive deviation in the middle group.

Every real improvement is probably reflected in holding power. Schools cannot be measured directly by the education, experience, and personality of teachers; but other things being equal, the more education the teachers have, the better their experience and the finer their personality, the better the chances are that fewer pupils will be quitting school before they graduate. It is practical to measure school buildings but they are not a measure of general school standing; yet their influence is reflected in holding power. Every real improvement holds pupils in school, otherwise it is only of passing moment in which case its lasting effects are nil. With such theories in mind, it is hoped that some states, as well as cities and counties will find in holding power a useful measure which will help them in the evolution of their schools.

—State health officials in conference with health officials from forty counties in Ohio on the matter of closing the schools in the face of the prevalence of infantile paralysis, have ruled that a state-wide ruling in the matter is unnecessary and undesirable. The time for opening the schools, therefore, was left to the discretion of the local school and health authorities. Dr. John Monger, state health director, pointed out that the average child has better health supervision in school than in the average home and suggested that the schools be opened with close medical supervision. Schools in Cleveland and Cincinnati were opened at the usual time, while Toledo delayed opening until September 19.

be maintained on a junior and senior highschool grade type, with most of the pupils in the elementary schools.

Seven states maintain eleven grade systems, that is, seven elementary grades and four high-school grades. The adding of another grade to these school systems would, alone, bring them up considerably on holding power in indexes, worked according to the formula prepared. If Texas were to have eight elementary grades, or in all twelve grades instead of eleven, its index of holding power would shoot up from a rank of 35th among the states to at least half-way to the top. There are cities in Texas under the present eleven grades whose holding power is very high.

The standing of the states is important but as each state is sovereign unto itself in school matters, the degree with which they go forward is almost entirely up to themselves. On the other hand the standing of the counties is a matter that is within the jurisdiction of the individual commonwealths. A state has power not only to suggest improvements but the ability to make them within its own borders. The index of holding power, if applied on a fair basis to the counties, will give all concerned a reliable measure of school efficiency. A number of states have been using the Ayres or a modified form of the Ayres index system for rating their counties, apparently with not entirely satisfactory results.

It is not enlightening to average days, dollars, and pupils, and this is about what has been done. Neither is it advisable to publish comparative ratings of a complicated nature, because they can never be proved nor disproved, and few are satisfied thereby.

There must be a simpler and better index of school progress. The index of holding power has the required qualifications. It is based upon the number of pupils under each grade of instruction.

From the number is figured the percentage of pupils in each grade. The tentative standard distribution of the per cent of pupils in three groups of grades is as follows:

Pupils in the elementary grades	1.6	55 %
Pupils in the middle grades	7-9	25%
Pupils in the senior grades		20 %

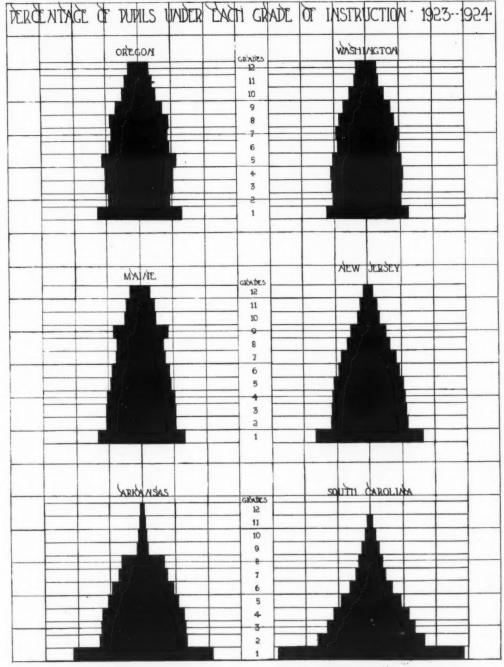


FIG. III. HOLDING POWER OF SCHOOL SYSTEMS IN SIX STATES.

# Meeting of the World Federation of Education Associations at Toronto, Canada

Supt. T. J. Jones, West Allis, Wis.

The Second Biennial Conference of the World Federation of Education Associations met in Toronto, Canada, August 7 to August 13 inclusive. It was a remarkable gathering made up of educators representing practically every civilized country.

The World Federation of Education Associations was organized in the summer of 1923 at San Francisco in connection with the meeting of the National Education Association of the United States which met in that city. The first biennial conference was held in Edinburgh, Scotland, in the summer of 1925. At the Edinburgh meeting 1,400 delegates were present from different countries of the world. "It was esteemed a brilliant event in the history of education."

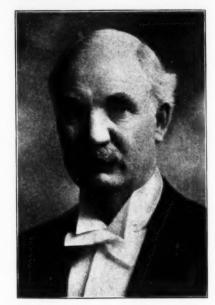
The second biennial conference of the federation, which met in Toronto, was a great educational gathering. The meetings were held in the buildings of the University of Toronto and a total of eight thousand delegates were enrolled. Of these some two thousand come from the United States, four hundred from the British Isles while some 150 delegates came from other foreign countries. There were many distinguished delegates from England, Scotland, Ireland, Australia, Germany, Denmark, Persia, India, China, and Japan.

Doctor Augustus O. Thomas of Augusta, Maine, was reelected president and Professor Harry Charlesworth of Vancouver, British Columbia, Doctor Kuo of Southeastern University, Shangnai, China, and Doctor E. J. Sainsbury, Thames Ditton of Surrey, England, were reelected as vice-presidents. Professor Charles H. Williams of the University of Missouri was reelected secretary-treasurer.

The World Federation has been especially fortunate in the selection of its president, Doctor Augustus O. Thomas and its secretarytreasurer, Professor Charles H. Williams. To Doctor Thomas possibly more than to any other is due the credit for this great organization. He has served as president since the organization of the federation in 1923. Its remarkable growth and success and influence in the past four years has been due to his energy and ability as organizer and executive. He has succeeded wonderfully in getting the cooperation of educators from all over the world. His vision has been such that it has appealed to and grasped the interest and hearty support of leadin educational thought throughout the world. The State of Maine, in which he is the state superintendent, has given him all the time necessary to devote to upbuilding the federation. Likewise the University of Missouri has granted to Doctor Williams, office room, office assistance, and time to devote to the work of the association.

The Toronto conference adopted articles of incorporation for the World Federation of Education Association. That was one of the important achievements of the conference. The association is incorporated under the laws of the State of New York and has been granted a charter by the Regents of the University of the State of New York, pursuant to the provisions of Section 59 of these laws. The membership provided by the articles of incorporation "shall be composed of educational organizations, associations of persons directly connected with education, associations of educational authorities, institutions of learning, or associations whose chief function is education."

The purposes of the World Federation of Education Associations are tersely told in the



DR. AUGUSTUS O. THOMAS, President of the World Federation of Educational Associations, Augusta, Me.

articles of incorporation as follows: "The purposes for which such corporation is to be formed are to promote the cause of education and to elevate the character of teaching throughout the world; to secure international cooperation in educational enterprise; to foster the dissemination of information concerning the progress of education in all its forms among nations and peoples; to advise and promote suitable and effective means to bring into closer co-ordination the various agencies in every civilized country which have to do with education; to cultivate international goodwill and to promote the interests of world-wide peace." Certainly an association with purposes so elevating and so far-reaching in their influence in molding the lives of men and women throughout the world is worthy of consideration on the part of educators and educational agencies throughout the

The wide range of effort by the federation is indicated by the fact that nineteen departments, divisions, and group conferences are now in existence, covering the widest range of education from preschool to adult education.

The great success of the Toronto conference and the delightful and profitable time enjoyed by the delegates were largely due to the untiring efforts of the Canadian committee of arrangements. The officers of this committee were: Doctor E. A. Hardy, Chairman; Professor Charles G. Fraser, secretary; and Professor R. M. Speirs, treasurer. Chairmen of important subcommittees were, Professor S. H. Henry, Doctor D. D. MacDonald, Doctor A. E. Marty, Professor W. J. Dunlop, Dr. E. A. Hardy. The loyalty of the Canadian teachers to the cause of education as manifested in this conference is unsurpassed. The Canadian teachers voluntarily contributed nearly \$20,000 to help make the conference a complete success.

The Ontario Provincial Government through the hearty support of the Hon. G. Howard Ferguson, prime minister of Ontario, contributed \$10,000 to entertain the official delegates and over-seas delegates to a day's excursion to Niagara Falls. It would be difficult to imagine a better planned and more successful excursion to Niagara Falls than this. A thousand delegates enjoyed the hospitality as guests of the Ontario government. It was a wonderful day and every delegate was enthusiastic in his praise of the generosity of the Canadian teachers and

the Ontario government. All other delegates attending the conference were given an excursion to Ontario Agricultural College at Guelph,

In addition to this unbounded hospitality, the board of education of the City of Toronto tendered a luncheon in King Edward Hotel on Tuesday to the officials and over-seas delegates.

Two other outstanding features were provided by the City of Toronto. A complimentary concert was tendered by the Canadian National Exhibition Chorus under the direction of Doctor H. H. Fricker. This great concert in which 2300 persons participated, accompanied by the Toronto Concert Band was "a real contribution to the pleasure of the delegates to the world conference."

Another great undertaking and one long to be remembered by the delegates was the pageant entitled "The Heart of the World" which was "a symbolic presentation of the power of children and song in the development of civilization," by Augustus Bridle. This beautiful pageant was intended to convey the basic truth of the federation and to make the picturesqueness of peace appreciated as much as the picturesqueness of war. Some conception of this stupendous undertaking may be obtained by the fact that 1,400 people participated in the pageant. There was a great chorus of 600 in colors, a stage chorus of 300 in costume, a world character chorus of 60, a children's chorus of 300, three dancing groups, pantomime character parts, national groups in special acts, and the Toronto Concert Band of 55 instruments. The whole pageant was a wonderful spectacle of music, color, and movement. It was a symbolic picture of the development of the world from savagery to civilization through the influence of education. It presented many national airs, national costumes, and national dances, with a magnificent finale ensemble representing the world in harmony through the power of the child. It took four stages, rising one above the other, to present this stupendous undertaking. Nothing could have been presented more in harmony with the spirit and purpose of the conference than this pageant entitled "The Heart of

Many leaders of educational thought and progress, representing every Continent, were in attendance and took active part in the discussions and proceedings of the conference. Some of the distinguished delegates were:

Miss Grace Li of China, daughter of the second president of the Chinese Republic. Miss Sushama Tagore of Calcutta, India, niece of Rabindranath Tagore. D. Piereff, deputy minister of education of Bul-

garia.

T. J. O'Connell, leader of the Labor Party in Ireland.

Miss Mary Tweedie, of the Educational Institute of

Miss Mary Tweedie, of the Educational Institute of Scotland.

Fred Mander, president of the National Union of Teachers of England.

Dr. Otto Tacke of Stetting, Germany, who declared that "educationalists were building up a new Germany in sincere communion with other peoples as typified by the World Federation."

A. Beijan, deputy minister of education of Persia. Professor Moises Saenz, assistant secretary for education of Mexico.

Dr. P. W. Kuo, China.

V. Gogate, Arindah, India.

Miss Cornelia Adair, president of the National Education Association of the United States.

Dr. M. Sawayanagi, president of the Imperial Japanese Education Association and member of the Japanese House of Peers.

Dr. Signey Wei, Peking, China.

Dr. S. U. Chaturvedi, India.

Mr. Raphael Herman, Washington, D. C., donor of the Herman Award for an Educational Plan Calculated to Produce World Friendship and Justice.

Dr. Jacob Lange, Adense, Denmark.

Mr. H. Alsawa, Japan.

Dr. A. Cavadas, Parnassus, Greece.

Mile, Suzanne Ferriere, Geneva, Switzerland, Mr. Denes Janossey, Hungary.

Dr. Bruno Koslowski, Poland.

Mr. Francisco Vizcariondo, Porto Rico, Dr. Jirl Vranek, Czechoslovakia.

Dr. Katzaroff, University of Sofia, Bulgaria.

Mile, Madeline Kaiser, Brussels, Belgium.

Dr. Bruno Koslowski, Poland.
Mr. Francisco Vizcariondo, Porto Rico,
Dr. Jiri Vranek, Czechoslovakia.
Dr. Katzaroff, University of Sofia, Bulgaria,
Mile, Madeline Kaiser, Brussels, Belgium.
Dr. Francis Deak, Hungary.
Dr. Franpisek Kueton, Czechoslovakia,
Senor Benjamin Cohen, Chile.
Mr. Paul Hansen, Helsinfor, Denmark,
President N. Katayama, Japan President N. Katayama, Japan

(Concluded on Page 136)

# Public-School Property Insurance

S. G. Skaaland, Superintendent, Sandstone, Minn.

School funds of all kinds are protected from the time they are levied until they are expended. This is true whether the money is to be used for current expenses, for the purchase of new equipment, or for land and new buildings. The school treasurer and the depositories are bonded; bonds are required of contractors and architects so that there is little possibility of a school district suffering financial loss through the careless handling of school funds.

But very often the school district is not protected from financial loss due to the destruction of property for which money has been expended. The protection of property entrusted to school boards presents many and varied problems.

School property is subject to depreciation, obsolescence, inadequacy, chance destruction, and accidents. Those responsible for the management, maintenance, and preservation of school property must consider these hazards, anticipate them, avoid them if possible, and take the necessary steps to meet them. Business concerns consider these hazards and are prepared to meet them. Reserves for depreciation are set up by almost every type of business concerns. Their property is insured against chance destruction, and they know very well that they cannot continue to do business if their places of business are inadequate or obsolete. Yet we find business men serving on school boards, who do not seem the least bit concerned about these hazards when it comes to school property.

#### Hazards of Chance Destruction

It is the purpose of this paper to discuss the manner in which school boards protect school property against one form of hazard, chance destruction.

The writer secured the greater part of the information given here from a study made by him of the manner in which school boards in Minnesota handle their insurance problems.1 Use has also been made of information gathered by Melchior in his study of the same problem in New York state.2

Five schoolhouses burn every day in the United States. For every two new schools erected, one is destroyed by fire. During the nine-year period from 1914 to 1923 there was an average of 24 schoolhouse fires in Minnesota per year, with an average yearly loss of \$291,625. In New York state, not including the three large cities of New York, Rochester, and Buffalo, there were 91 schoolhouse fires from Jan. 1, 1915, to Dec. 31, 1920, with an average loss per year of \$159,216.

If surveys were made in every state, no doubt similar figures would be the result. The total figure for the United States if available would be staggering.

There can be no doubt about the existence of the fire hazard. The big problem before school officials is how to reduce this loss.

#### Methods of Protecting School Property

There are three ways in which this problem may be met. The school district may assume the risk itself; it may purchase protection by insuring in insurance companies; or it may combine the two. If the district assumes the risk, it may set aside a reserve fund with which to replace losses, or it may assume the risk without any provision for meeting it whatever. In this latter case it will have to take all losses as they come

<sup>1</sup>Skaaland, S. G. An Analysis of the Practices and Procedures Followed in Insuring School Property in Minnesota. M. A. Thesis, Minneapolis: University of Minnesota Library, 1926.

<sup>2</sup>Melchior, W. T. Insuring School Property, Teachers College Contribution to Education, No. 166. New York: Teachers College, Columbia University, 1925.

The city of St. Paul carries no insurance on school property, except on certain types of portables. New York, Washington, D. C., and New Bedford are cities where no insurance is carried. Eleven out of 34 cities of the United States with a population of 100,000 or over make little or no provision for loss of school property by fire. Eight out of 82 cities with a population between 30,000 and 100,000 make but little pro-

It is quite evident that very many of the largest cities do not insure school property. How large a city should be before it can afford to be without insurance is not easy to say.

Fourteen out of 116 cities of 30,000 population or over set up reserve funds as protection against fire losses either in the form of special school-board funds or municipal funds. Cincinnati has insured by a special fund for the past ten years and sets aside \$25,000 annually from current taxes for this fund. This appropriation amounts to the estimated annual cost of insuring their school property in private insurance companies. Seattle now has a reserve fund of \$100,000, and Kansas City has over \$80,000 accumulated for that purpose.4

It is not certain, however, that the method of setting up reserves is sound financially; except in very large cities.

#### Protection by Purchase of Insurance

It has become standard business practice to protect property against accidental losses by the purchase of insurance. Very few property owners would care to be without insurance for even a single day. Yet not one man in a hundred really knows his insurance, is familiar with the terms of his policy, or understands its obligations and limitations. This is equally true of school boards purchasing insurance for school property.

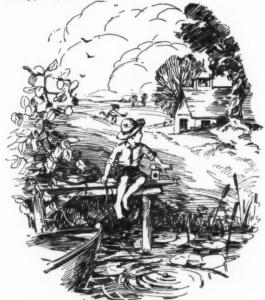
The insurance policy is an agreement to indemnify the insured under certain conditions for proved loss or damage by fire, up to a certain amount. What these specific conditions are can be easily ascertained by making a study of any standard fire-insurance policy.

One of the conditions, and probably the most important one, is that settlement for loss or damage by fire will be made on the basis of replacement cost at the time of the fire, less proper allowance for depreciation.

#### Appraisal of School Property

It would seem that the first step in planning an insurance program for public-school property

<sup>3</sup>Melchior, W. T. Insuring Public School Property, 195 p. 148 1925, p. 148. 'Melchior, W. T. Insuring Public School Property, 1925, pp. 148-150.



would be the scientific appraisal of the property to be insured. Investigations have revealed that there is much laxity in this matter on the part of school officials.

In Minnesota 52.4 per cent of the 103 districts reporting on this point, state that the appraisal for insurance purposes was done by school officials themselves; 17.4 per cent report that the insurance agents themselves do it alone; 14.3 per cent report that it was done by local contractors or architects. In only 5.8 per cent of the cases was it done by appraisal firms. In 28.4 per cent of the cases it was reported that no special method was employed. It is quite probable that in these latter cases very little attention had been paid the matter. Of the districts not making any report of this matter, it is quite safe to say that no proper appraisal of the property was made. As to the manner in which the appraisal was made, the answer was practically in all cases "estimated." In New York state only 3.2 per cent of the 410 districts reporting used the services of an appraisal firm.

This indicates very poor insurance practice, as there can be little question but that very few of the schools, except where appraisal firms were employed, were properly appraised.

It must be borne in mind that whenever a fire occurs, the insured must prove the loss he The burden of the proof is on the policy holder. He must make a complete inventory of the loss, stating the quality and value of each article involved and the amount claimed

The contents of a school building can be quite easily inventoried. School officials should insist that it be done annually and a record kept.

Advantages of Employing Appraisal Firms Buildings, however, are more difficult to evaluate, and it is seldom that school boards have records of them in sufficient detail as required by insurance adjusters. When the property is destroyed the insured may have very little evidence to support their claims.

School boards as a rule are not competent to make appraisals that will satisfy fire adjusters. Scientific and accurate appraisals require expert knowledge and experience.

There are many reasons why it would be of advantage to school boards to employ expert appraisers. An appraisal by some appraisal firm establishes from a disinterested standpoint the insurable value of the property. It is an itemized, provable statement of valuation from which insurance can be accurately written. It is a complete inventory of buildings and equipment priced on the basis of new reproductive costs, with separate and specific judgments of depreciation. When fire occurs the appraisal provides a complete and satisfactory proof of

Records of all appraisals are kept by the company so that, if the school board's copy is lost a duplicate easily can be obtained. Insurance companies welcome the services of an appraisal firm as it is very easy for both the insurer and the insured to arrive at a just figure for the settlement of all claims, in exact accordance with the conditions of the insurance policy.

The appraisal also supplies the school board with data necessary to rebuild and re-equip destroyed property. Close inspection by an appraisal firm would also discover existing fire hazards which can be removed by local author-This might mean the saving of thousands of dollars. It must be remembered that the fire hazards determine the risk of destruction, and if the risk is great the insurance cost will be high.

The cost of a scientific appraisal by an appraisal firm is not so high but what every school district, even the smallest one, could well afford it.

It is not possible here to go into details concerning appraisals. Sample appraisals are sent out by appraisal firms and the cost is also given. School boards would do well to investigate this matter and find out the many advantages of this service.

Cost of Insurance

The item of insurance cost on the budget is not a very large one as compared to other items, but it is nevertheless an important one. In Minnesota it was found to be .9 of one per cent of the total current expenditures for school purposes. The ratio of premium cost to value of school property was .2 of one per cent.

This does not answer the question, How much does it cost?, because it does not state how much protection this cost gives. The actual protection depends on the amount of insurance carried in proportion to value of property and the rate.

Ratio of Insurance Carried to Value

It was found that in Minnesota the average ratio for the state as a whole was 80 per cent. This ratio was quite uniform throughout the state, although in one city of the first class it was 60 per cent and in some of the smaller cities as high as 100 per cent. The average ratio of 80 per cent for the state constitutes good insurance practice, as insurance men urge full insurance or at least 30 per cent.

Co-insurance is of advantage to school boards, as school property can be insured to a higher percentage of value at a reduced cost. Officials who have the co-insurance clause in their contracts must be careful that they carry the amount of insurance agreed upon, otherwise in event of loss they will be contributors to the loss and will not receive the indemnity expected.

The co-insurance clause is not made use of as much as it might be, due chiefly to the fact it is not fully understood.

Insurance Rates

The cost of insurance depends upon the amount of insurance carried and the rate. Very little can be done by school authorities directly, in reducing or changing rates. Ordinarily insurance rates are fixed by rating agencies who inspect the city or village and fix a basic rate for the whole community. In determining the basic rate, the efficiency of the fire department, the sufficiency of the water supply, effective building laws, police protection, and the fire loss record of the city and state are considered. To or from this basic rate thus established, additions or subtractions are made for the four hazard elements regarding buildings which are, location, exposure, construction, and occupancy.

School boards can, however, inaugurate intensive fire-prevention programs and by reducing the number of fires reduce rates. In inaugurating building programs they can insist on fireproof construction and thus not only reduce the number of fires and lower rates but also safeguard the lives of the children under their

It is the contention of some insurance companies that school property constitutes a very poor risk. Some of them claim that 75 per cent of the premium money collected by them on school property is used in paying losses, and as it costs them 45 cents of every premium dollar to do business, they consider it poor business. The figures for Minnesota seem to carry out this contention of insurance companies so far as paying fire losses is concerned. It was found that 74.1 per cent of the premium money collected was paid out again in the form of indemnity. Melchior found, however, that for 59 cities of 30,000 to 100,000 of the United States, the ratio was 24.25 per cent and that for New York state it was 35.62 per cent.

There is great laxity among school officials in keeping insurance records. School superintendents, especially in the smaller communities, pay little or no attention to this matter. The records are left largely in the hands of local fire-insurance agents. This is exceedingly poor administration of school affairs and very poor insurance practice. Very few school-board members know how much insurance is carried and many school buildings would remain unprotected by insurance unless insurance men notified them of the expiration of their policies.

Allotment and Length of Insurance

The greater part of the insurance policies are written for a three-year term. This is good insurance practice. Some districts use the five-year term. Very few write their insurance for one year.

It is especially good practice in large school districts, where there are many policies, to check them for concurrency. As most policies are written for a three-year term, it is good practice to have one-third of the policies expire every year. The cost of the insurance will then be distributed evenly over the three-year period.

It is also well to have all policies have the same dating so that the matter of insurance can be taken care of just once during the year. It is troublesome as well as poor business practice to have policies expiring every month of the year.

The allotment of insurance to agents is a difficult problem and has caused much dissension and discord in communities. The only criteria for this allotment are harmony and efficiency. No general plan or rule is applicable to all districts as local conditions differ. It is, however, a good plan for the school board to call in all the agents in the city and discuss the matter in open meeting. A plan adopted in this manner and agreed upon by all agents themselves probably will be the most satisfactory.

Several large cities have worked out successful plans for allotting the insurance. Probably the most elaborate one has been worked out by the Minneapolis beard of education. The details of this plan are obtainable in mimeographed form from the business superintendent. Another plan worthy of mention is the one in

use in St. Joseph, Mo.

After all has been said the best fire protection is fire prevention. School buildings can be rebuilt and new equipment furnished even though the property destroyed was not insured, but the lives of the pupils in the schools cannot be replaced if lost by fire. Therefore in any event, whether school officials insure their school property or not, it is absolutely incumbent upon them to protect the lives of all pupils while at school. This can best be done by carrying on continuously an intensive program of fire prevention.

# Experience or Guesswork?

George R. Bryant, Manchester, Ohio

I was very much interested in reading the article in the September number of The American School Board Journal regarding the young school executive. It meant quite a bit to me because I am one of the much-criticized young school executives.

The discussion concerning the "experimenter" among the young school men I considered rather sound, but I am forced to disagree with one or two statements which implied, rather than stated directly, that the young school executive is a dangerous person to have in a school system, because of his tendency to experiment.

Experimentation, so called, is the term generally applied to any system of diagnostic testing that may be carried on in the school to measure the results of teaching. Therefore, if the former school-board member should be asked concerning the experimenter, I imagine that he would mention tests and measurements. True, we measure our farm produce, our groceries, the gasoline we buy for our automobiles, but as for measuring the products of our teaching by a sound objective method, heaven forbid! Rather, we should use the teacher's estimate, which has been proved time after time unsound. Is this the "theory" that the former school-board member is talking about? Standardized tests are based upon standards as set up after a careful study of the results of tests, etc., given in hundreds of schools. Therefore, it is not unsound for an executive to expect his children to meet the standards as set up after a study of other school results. This is not experimentation in my mind, but realization.

Speaking of the old executives, it is said, "—while they have still held to the general plan which has been found, up to that time, most effective." Therefore, don't buy that new 1927 auto, but drive a 1903 model, side crank, "which up to that time has been found most effective"? How do you know it is effective? The "experimenters" can apply their measuring sticks but the others feel thus and so. The blue-back spellers of a decade ago contained lists of words that were veritable jawbreakers, but when John wrote the three forms, two, to, too,

he became hopelessly confused, and when he tried to write or spell *either*, he mired down. The "experimenters" made some careful studies of spelling needs, and the first real movement toward teaching spelling to make spellers, began.

True, the young man does often overdo some of the ideas that he picked up in college, but, for that matter, there are cranks to be found in the ranks of teachers as well as in other professions. We may well criticize the older executive for his political tendencies, to which he often resorts to hold his position because of the fact that he is too prone to follow the general plan as against the younger man with a vision, who is ready to question, to weigh, the school problems with modern methods instead of "hefting" them with one hand.

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The young schoolman may make mistakes with his new book ideas, but he may at least do one or two good things. I believe that anyone will agree to this statement. So, also the older man may have been following mistaken ideas for several years, because of the very human tendency to become "sold" to an idea that one has used for a long time. Roger Bacon came close to losing his life at the stake because he suggested that if one wanted to find out something about a fish, he should dissect one, not go to the Bible, which, although an excellent spiritual guide, was not to be so highly recommended as a biological guide. I cannot possibly see how such an idea, if introduced into the classrooms of that time, could have done harm to the education of the period. Roger Bacon, however did not follow "the general plan, which (had) been found, up to that time, most effective." The wise men of Queen Isabella's time laughed heartily at Columbus when he outlined the plan for sailing east by going west. They also disliked the experimenter tendency of that upstart, Columbus.

I am of the firm opinion that education should grow just like other lines of endeavor, and, because of the fact that good books are mirrors of years of experience of others, I shall read books, study my school carefully, attend college whenever I can and still be an "experimenter."

### What Some School-Board Members Think of the Michigan Code

E. K. Hillbrand, Mitchell, S. Dak.

There appeared in the School Board Journal for July, 1925, the "Code of Ethics for School-Board Members" which was adopted by the Michigan State Teachers' Association.

Thinking it would be worthwhile to place this code of ethics in the hands of various schoolboard members, a letter was sent to the clerks of school boards of the accredited "North Central" schools in South Dakota. A copy of the Michigan code of ethics for school-board members was enclosed.

The large number of replies indicated not only what was thought of the code, but also brought to light a number of problems which are considered violations of the code.

Not all were satisfied with the code, as is indicated by the following: "The code of ethics as adopted by the Michigan State Teachers' Association is so patently from the teacher's standpoint that it is open to criticism, especially Section 10 as to whether a teacher should be paid for attending educational meetings. The granting of privileges to attend educational meetings has on the whole amounted to very little. Just the ones that should attend are the ones that go to the meeting and spend their time in the department stores and the picture shows. Summer schools, if properly handled, are a good thing, but in many cases they prove to be an outing on pay. As to travel, at least seventy-five per cent of the teachers have about all they can do to pay for a ticket to their home

Objections to the Code

Section 9, which has to do with an adequate salary for teachers, drew this comment: "It has been the experience of this board that many of the teachers drawing the smaller salaries save more money than those who receive the larger salaries. Payday here, means Sioux Falls the next day for many of the teachers; and when they come home, they have to stand off the people who room and board them, for another month. Results have shown that the teachers drawing a hundred dollars a month have just as much money and just as much to show for their money during the year as those who get three hundred a month."

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In connection with Section 7 of the code, which has to do with the duties of the superintendent, another board member had this to say: "This item in the code is one in which this board never has agreed and never will. They do not seek to perform the duties of the superintendent of schools, but they do hire the teachers, usually consulting with the superintendent. This is one of the duties for which the board is elected. As to textbooks, the superintendent may be more conversant with just what books are up to date, but no superintendent should be allowed to order textbooks without the consent of the board. The average superintendent is sorely lacking in business judgment."

Typical Violations

School-board members were quite unanimous in condemning certain practices and situations, such as the following, as violations of the code of ethics:

In one town, the salary schedule was placed very low, with a knowledge that certain teachers in the community would accept rather than go elsewhere. In other words, the board knew that those teachers wanted or had to remain home; consequently, they lowered the salary schedule, knowing that the teachers would accept anyway. Thus, advantage was taken of certain teachers because they lived at home, and ETHICS FOR SCHOOL BOARD MEMBERS

ETHICS FOR SCHOOL BOARD MEMBERS

(Adopted by the Michigan State Teachers' Association.)

Any school-board member conducts himself in harmony with this Code of Ethics when he:

1. Abstains from soliciting any employee of the school to purchase any given commodity or service, such as real estate, insurance, or professional service.

2. Assumes no personal authority in administering the work of the schools unless he has been instructed to do so at a board meeting.

3. Avoids seeking to secure a school position for a member of his immediate family.

4. Refrains from public criticism of any particular teacher, but, if circumstances warrant, brings complaints to the attention of the proper supervisory officers.

5. Refrains from seeking special privileges for his children or employees.

5. Retrains from seeking special privileges for his children or employees.
6. Declines to offer a contract to a teacher who is find the willing the willingness of the teacher's employer to grant a release.
7. Abstains from seeking to perform the duties of the superintendent of schools or any other employee—such as selecting teachers, textbooks, promotion, or placement of pubils.

selecting teachers, textbooks, promotion, or placement of pupils.

8. Offers to teachers only such a contract as is just and equitable in form.

9. Endeavors honestly to contract with teachers on a salary basis that will cover living expenses for twelve months and a surplus for savings.

10. Stimulates and encourages the professional growth of teachers while in service by granting them permission to attend educational meetings without loss of pay, visiting days, and by encouraging them to attend summer school, to travel, and in other ways to improve their knowledge and skill in teaching.

11. Assist in securing a clear and definite statement and understanding of the duties to be performed by the board of education on the one hand and the duties of the supervisory officers and teachers on the other.

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they were given a much smaller salary than they could obtain elsewhere.

When married couples are hired, the wife is sometimes given a very low salary, simply because the school board knows that she wants to be in the same school system with her husband.

In another place, a teacher was not reelected, although she was doing very satisfactory work. In her place, the board hired a married woman from the home town, who had received her training eighteen years previous. She was elected on the grounds that she was a home

In another town, a banker who was a member of the school board insisted that teachers keep their money in his bank. This banker was very influential in the community.

In many places the teachers did not take enough interest in the community, due largely to the fact that they had cars and drove home Friday afternoon and returned Sunday night.

Two schools in South Dakota require that all teachers be in bed by eleven o'clock on school

nights. One school-board member objected to this requirement as being unethical, although he admitted that one of the teachers in the school system went to sleep in her own classroom and rolled off the chair.

Problems of Teachers' Contracts

One teacher made application as "Miss," and a few days before school opened she informed the board that she was married and had been married one year. She admitted that when she made application she feared that if she stated she was married her chance for the position would be greatly hindered.

Board members complain that they occasionally find a teacher who is willing to accept her contract from the board of education merely as a guaranty that she will have a position, but she is willing and ready to resign at any time for a position that is offered her that may suit her convenience.

"In renewal of contract, there is considerable amount of 'bluff' on the part of teachers in trying to get a raise in salary. We also find that a contract means nothing in their young lives (or old ones either) in case they are offered a larger salary at some other place. The only persons who can break contracts with impunity are teachers and preachers."

"We do not have any trouble as to other boards; they play fair. But at times teachers who have signed contracts keep on looking for

(Concluded on Page 134)
THE LENGTH OF THE JUNIOR-HIGH-SCHOOL DAY

The table presented below gives in column 1, a list of 37 cities having a population of 100,000 and over, reporting1 the length of junior-highschool day.

Column 2, in which is given the length of school day exclusive of noon and recess periods, shows that 4 hours and 50 minutes is the minimum length of such day; 6 hours and 30 minutes is the maximum; and 5 hours and 45 minutes is the median length.

Column 3, giving the length of the noon period, shows that 15 minutes is the shortest of such periods; 60 minutes, the longest; and 30 minutes is the median length.

Eight of the cities reporting give from 1 to 2 recess periods, the usual length of which is 30 minutes (see columns 4 and 5). The other cities upon the list did not report recess periods.

The opening hour of the junior high schools in these cities is usually 8:30; the usual closing hour is 3:00.

<sup>1</sup>Compiled from a questionary sent out by the U. S. Bureau of Education, March, 1927.

JUNIOR-HIGH-SCHOOL DAY IN 37 CITIES HAVING A POPULATION OF 100,000 AND OVER Recesses Reces
Total Length
of Recess
Periods
in Minutes
5 Time of Opening School 6 9:00 9:00 8:45 Length of Noon Period in Minutes Length of Day Exclusive of Noon and Recess Periods Time of Closing School 3:30  $\frac{30}{40}$   $\frac{20}{20}$ 6 hours 2:30 2:30 2:45 2:30 hours, 50 minutes hours, 25 minutes 8:45 8:45 8:30 hours hours 6 hours
6 hours
6½ hours
5¾ hours
5¾ hours
hours, 15 minutes
hours, 15 minutes 8:30 3:00 30 45 45 15 30 8:30 8:45 8:30 8:45 8:25 8:45 8:30 9:00  $\frac{1}{45}$   $\frac{20}{45}$ 45 minutes 10 5½ hours 5¼ hours 2:30 3:00 hours 8:30-8:45 8:50 8:30 30 to 45 3:00-3:15 hours 30 30 2:30 4:00 3:30 3:30 hours 15 minutes 45 60 hours hours 8:30 8:30 2 30 9:00 3:00 3:00 3:15-4:00 3:00 3:00 3:00 3:50 | Philadelphia, Pa. | 53/2 | Reading, Pa. | 53/2 | Reading, Pa. | 53/2 | Reading, Pa. | 53/2 | Richmond, Va. | 5 hours, Rochester, N. Y. | 6 | St. Louis, Mo. | 53/2 | St. Paul, Minn. | 6 | Salt Lake City, Utah. | 6 | San Francisco, Calif. | 6 | Scranton, Pa. | 6 | Scranton, Pa. | 6 | Scranton, Pa. | 6 | Control of the C hours 50 minutes 6 51/2 8:30 8:00 8:30 9:00 hours 30 30-45 3:00-3:15 8:30 8:30 8:50 8:30 8:45 8:45 8:30 3:30 3:30 3:20 3:00 3:30 3:00 3:00 hours hours hours

# Regulating Automobiles on School Trips

Philip Lovejoy, Assistant Superintendent, Hamtramck, Mich.

For several years, while I was connected with the high-school work, we found it advisable to use students' automobiles for field trips of one sort or another. Transportation is necessary in the high school in this day and age. Just how shall we regulate it? Some schools buy a bus outright and then secure a competent driver. Some schools hire busses for specific trips as the need arises. Some schools can use the regular route busses to make their trips. Some schools use interurban street cars and still others use the regular trains.

But, there are many schools who find that the use of an automobile now and then renders very excellent service. I have in mind such things as debates, field trips to nearby plants, possibly in neighboring cities, or such things as picnics and parties after school, composed of school children chaperoned by a teacher. If a private automobile is used at these times, complications are certain to arise that must be cared for in advance.

What are the liabilities of the driver of such a car? The driver ordinarily is responsible for anything that may occur. If, however, he is driving recklessly and the occupants of the car do not remonstrate with him, they are equally responsible and liable. Ofttimes it is impossible to have an adult (teacher or parent) in every car. Then it devolves upon the school to work out some sort of a permit that will regulate this matter from the standpoint of the school. That is exactly what we tried to do at Mount Clemens, Michigan, when we adopted the "Field Trip Automobile Permit."

To illustrate: A teacher desires to take a group of people to the Detroit News plant to study some phase of journalism. Railway transportation will be upwards of a dollar per student. There are fifty students in the proposed party. Ten students state that they have cars and are willing to furnish them for the price of gasoline and oil. This will reduce the cost to each student to about 25 cents each. This saving is especially appreciated in these days. But there are a number of questions that have to be answered before such a trip ought to take place. What child is going with what driver? Are these drivers licensed under the state law? Is the car insured? Is there property liability? Is there personal liability? When are the students going to return? May one student stay over and not come back with the party?

So we devised a card that works something like this:

1. A teacher who wants to have such a field trip applies at the office for a field-trip blank on which she states where she wants to go, for what purpose, when she wants to go, and how many pupils will go. This blank must be filled out and returned to the office in duplicate at least 48 hours before the trip is to take place. If the trip is allowed—that is if it comes under the policy of the school—the blank is so marked. One copy is posted on the teacher's bulletin board and the other is sent to the attendance department.

2. The teacher now obtains from the office sufficient automobile-permit blanks to give one to each student who contemplates the trip. The back of the card gives the rules under which the trip may be held and also gives essential information about the driver, the car, and the insurance features involved. The teacher knows how many cars are going to be used and how many students are taking the trip. She assigns in advance the students to the cars and writes the name of the student in the first car on the

front of "Car 1" permit. She then does the same for student two for Car 1, etc., until she has filled the car. The four or five students who are going to ride in Car 1 are therefore known in advance. Their names have been placed on the five cards, on the back of each of which the essential information about the car is recorded.

3. Each of these students is then asked to take the card home for the parent's approval. The parent can see the status of the driver from the back of the card. On the front of the card he learns that the trip will be to the Detroit News between certain hours on such and such a date. He further knows that his son or daughter has been asisgned to this car, to ride in it both ways. And he understands that his child will return at the close of the trip, unless he gives special permission by crossing off the box on the left-hand side of the front of the card. The father then signs the card and the student brings it back to his teacher. The teacher collects all cards and sends them to the office of the principal at least 24 hours before the trip is to be held. No switching of cars may be made after these signatures are obtained, unless the parents give consent.

What have we done by this scheme of "red tape"? We have compelled every student driver to have a state license. We have compelled him to state whether he has insurance or not. We have notified the parent with respect to the driver and his insurance. The parent has given consent to this sort of a project and has declared that he is willing for his son to ride in the car in question. Therefore, we have notified everyone about the project and there is no uncertainty about it. It is simply a new phase of the public-relations policy of a modern high

Sometimes an adult drives the car instead of a student. We believe that the same precautions should be taken, and that the parent is still entitled to know just what driver is caring for his child.

We have been having trips of this sort for a number of years and formerly omitted the permit feature. One day a teacher desired to take her Junior Chamber of Commerce on a trip to Detroit. She obtained two cars, one belonging to the principal and one belonging to a student -a senior boy. The principal's car arrived in Detroit on schedule time. The car of the senior boy did not show up. It appears that, while driving along the main highway, a car manned by a drunken driver careened over to the senior's side of the road, forced him into the ditch, turned the car on its side-broke the windows, broke the glasses of the occupants of the car, smashed the car in general, but did not hurt the passengers themselves. The driver of the careening car did not have insurance. The senior did not have insurance, as his was a new car. No one was hurt-but glasses were broken. In this case the outcome was without difficulty. The passengers agreed to pay for





MR. VAUGHAN BECOMES STATE SUPERINTENDENT OF OKLAHOMA

OF OKLAHOMA

Mr. John Vaughan, who was recently appointed state superintendent of public instruction of Oklahoma, to succeed Mr. Nash, is a graduate of the University of Oklahoma. Mr. Vaughan has had fourteen years' experience in school work, comprising four years work in the rural schools and ten years as superintendent of city schools. He served as executive secretary of the educational survey of Oklahoma and has completed eight years as registrar and dean of the Southeastern Teachers' College at Durant.

their own glasses. The teacher conducting the trip was in the car. She had to get new glasses. But let us say, that someone had to go to the hospital. Who would have paid? The senior furnished his car free in this case. The parents did not know with whom their children were riding. They did not know that there was no insurance. The results of this trip caused us to devise the auto permit. We suggest it to any principal where such trips are held as being an instrument of great importance.

Mount Clemens High-School Student Field Trip

Automobile Permit

The regulations on the back of this card pertain to every automobile driven by adult or student which is transporting M.C.H.S. students either during or after school on any SCHOOL ORGAN-IZED trip.

I hereby give permission to.... Student school field trip to.....between the hours of . . . . . and . . . . . on . . . . . date . . I understand that......will ride both ways in.....'s automobile.

I understand my son or daughter will re-turn with the party at the close of the trip.

Parent's Signature..... Address ..... Phone .....

MOUNT CLEMENS HIGH-SCHOOL STUDENT FIELD TRIP TRANSPORTATION RULES Any teacher who shall manage any field trip in which automobile transportation is necessary shall do one of these two things:

Any teacher who shall manage any nets they which automobile transportation is necessary shall do one of these two things:

1. Shall obtain a regulation bus which operates under the state commission and is fully insured, or
2. If using local automobile driven by either students or adults shall ascertain
a. If full personal liability insurance is carried, and if not shall not permit any student or adult to drive said car for school students.

And in addition to this, where any students are taken on any trip by other than their own parents driving, shall in every case FIRST obtain written consent of the parents of the child going on the trip that they may ride in such and such a conveyance and with so and so as a driver. There must be no switching of drivers without parent's consent. All allotments of the principal's office at the time the field trip request blank is filed which is at least 48 hours in advance of the trip.

This rule applies to events during or after school hours in which the teacher is the prime mover or in which any teacher goes as a director or chaperon.

PHILIP C. LOVEJOY,

Principal.

Information About Driver of Car in Which Auto License No......Year....

# The Daily Program of the High School

Principal J. E. Running, Spearfish, S. Dak.

Effective high-school work is in part dependent upon a good schedule of recitations. The schedule is to the school what the time-table is to the railroad. But the writing of the schedule is by nature difficult. And recently it has been complicated further by curriculum enrichment and wider freedom in the election of studies. Still, little has been done to expose common practices for the assistance of the schedule writer. Many principals, through years of experience, have developed highly satisfactory schedules. But as conditions change, modifications must be made. At such times a statement of prevailing practices would be in-

Some Earlier Studies

The literature in this field is confined chiefly to methods of obtaining registration data for schedule construction. Thus, Meier1 outlines the method followed in the Central High School of St. Paul, Minnesota. James<sup>2</sup> discusses how registration data is obtained in the Central High School of Grand Rapids, Michigan. "The Schedule of Recitations," by Johnson,3 is a discussion outlining in a general way the method to be pursued in obtaining registration data for schedule making. Marsh<sup>4</sup> discusses programmaking in the English High School of Boston, Massachusetts. Here the type of program employed is the rotating, where the various blocks of recitation come in different periods each day of the week. Richardson,<sup>5</sup> in his monograph, "Making a High-School Program," presents a rather complete description of the process followed in the Girls' High School of Boston, Massachusetts. While these are splendid discussions of the method of obtaining registration data and the mechanics of assemblying it into a schedule, they throw no light upon prevailing practices in the actual way in which this is placed in the schedule.

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A questionary study by Harris<sup>6</sup> has thrown some light on these common practices. The questions asked pertain to the time of opening and closing of the school day, the number and length of recitation periods, and the practice regarding dismissal for lunch. The questionary was returned from 39 medium-size cities. Twelve (31 per cent) of the replies came from the one state of Michigan, and 26 (67 per cent) came from the four states of Michigan, Indiana, Illinois, and Wisconsin. Although the study was confined chiefly to cities of approximately the same size and located in much the same section of the country, considerable variation in practice is revealed. The opening time was found to vary between the limits of eight and nine o'clock, and the closing time from 12:30 to 5:15. The number of periods was found to vary from five to ten and the length of the periods from 40 to 71 minutes. Twenty-five (64 per cent) were found not to dismiss for lunch.

#### The Harris Study

The study made by Harris is valuable, although rather limited in its scope. In order to more adequately expose prevailing practices with regard to the general plan of the school day and to determine what uniformity there exists in the arrangement of subjects in the schedule, a somewhat wider study was undertaken. The data for this study were chiefly obtained from high-school schedules in actual operation. A request for the schedule, together with a copy of the courses of study, to aid in interpreting the schedule, was sent to 443 high schools. To obtain certain items of information that would obviously not be found in the schedules, a few questions were attached to the letter. These requests for material were sent to principals of high schools selected at random, except that high schools of cities of less than 5,000 population were not included and that for cities of over 100,000 population the request was mailed to the superintendent who was asked to turn it over to the principal of a representative high school in the system. The mailing list was further made out in such a way that the number of cities of different size that were included was roughly proportional to the number of cities of the various sizes in each state.

Of the 443 high schools to which requests were sent, 317 (71 per cent) returned replies usable to some extent, including 171 usable schedules. There were replies representing every single state and the District of Columbia. The replies from schools of different sizes were geographically well distributed, with one exception, a comparatively meager representation of the small schools in the western states. A probable explanation of this is that, in the newer and more rapidly growing west, expansion of organization has not kept pace with increase in enrollment. As a result many schools that were appealed to in this part of the country could not furnish the material requested, because they do not have schedules duplicated for distribution.

TABLE	1-DISTRIBUTION	OF KEPL	IES AND
	SCHEDUL	ES	
	Enrollment	Number of	Number of
Group	Range	Replies	Schedules
I.	150 to 399	46	25
II.	400 to 799	108	55
III.	800 to 1499	91	50
IV.	1500 and over	72	31
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MADY I DICEMBER OF DESCRIPTION AND

Although there was a total of 317 replies, many were incomplete, so there will not be 317 replies recorded in all counts. Of the 317 schools replying, only 171 sent usable schedules. For purposes of analysis it was found convenient to group the replies on the basis of the enrollment number of the schools represented. Table I gives this grouping, together with the total number of replies in each group and the number of schedules obtained from each group. In the remainder of this discussion these groups will be referred to by their Roman numerals.

#### The School Day

Of the 171 schedules, 105 gave the time of opening and closing of the various sessions of



the day. A tabulation of the time of opening of the first class, or roll-call when it takes place before going to the first class, is given in Table II. It will be seen that the time of roll-call

TABLE	II-TIME	OF	MORNING	ROLL	CALL
Time		G	roup		
A.M.	I	II	III	IV	Total
8:00	0	7	3	2	12
8:05	1	0	0	ō	1
8:15	3	4	4	1	12
8:20	1	2	0	2	5
8:25	. 0	0	2	1	3
8:30	4	6	7	7	24
8:35	0	1	1	1	3
8:40	1	3	3	1	8
8:45	2	8	4	4	18
8:50	ō	3	ō	î	4
9:00	4	4	3	1	12
9:15	1	1	0	0	2
9:30	1	ō	Ö	0	ī
Median	8:35	8:35	8:30	8:30	8:30

ranges from 8:00 to 9:30, with 8:30 as the mode, being the time set for this by nearly one fourth of the 105 schools; 8:45 comes next, being the time set by one sixth of the schools; and 8:00, 8:15, and 9:00 are tied for third place in popularity for this purpose, being each represented by twelve schools or one ninth of the 105 schools reporting. There is a slight tendency for smaller schools to commence later, as is indicated by the median, which is 8:35 in groups I and II, as compared with 8:30 in the other groups. The reason for this may be found in the fact that the smaller schools draw proportionately more from the rural districts than the larger schools. Many of these rural children have chores to do in the morning, and in addition must travel a considerable distance to school. Where the smaller school does not draw a considerable number from the surrounding country, and is not affected by any other modifying factor to differentiate it, opening in the morning should probably be as early in the smaller schools as in the larger schools.

To determine if geographical location is a factor in fixing the time for opening school. the schools were tabulated in two groups, based upon whether they are located east or west of the meridian in their respective standard-time zones. As determined by sunrise the day actually commences, according to standard time. on an average thirty minutes earlier east of the meridian than west of the meridian. If schools are responsive to this factor, we should expect a tendency to commence earlier among those located east of the meridian than among those west of the meridian. The results of this tabulation showed that the mode of the schools located east of the meridian is 8:30, while that of those located west of the meridian is 8:40, and that the mean time for starting school is 11 minutes later in the "west" group than in the "east" group. This shows that schools are indeed responsive to the factor of geographical location as related to standard time, when fixing the time for commencing school in the morning. The location of the medians for the various groups shows that the small schools are more responsive to this factor than the larger schools.

The Opening Time

One of the questions asked those who contributed material for this study was, "At what time in the morning is the building open to pupils?" A tabulation of 300 replies to this question is given in Table III. Although a considerable number qualified their answer by the term "approximately" or something similar, indicating that the time for opening the doors is not definitely fixed, the time indicated was nevertheless tabulated. There is a three-hour time-spread in the practice of admitting pupils to the building in the morning, the variation being from 6:00 to 9:00 o'clock. The mode is 8:00, which is also the median, being the time set by almost a third of the schools reporting.

<sup>&</sup>lt;sup>1</sup>A. G. Meier. Semester Reorganization and Program-Making in the Central High School of St. Paul, Minnesota. "School Review," 26:249-58.

<sup>2</sup>Alice M. James. Scientific Program-Making in the Central High School of Grand Rapids, Michigan. "School Review," 25:504-11.

<sup>3</sup>Franklin W. Johnson. The Schedule of Recitations. "School Review," 29:216-28.

\*\*John A. Marsh. Making the High School Review."

<sup>&</sup>quot;School Review," 29:216-28.

"John A. Marsh. Making the High-School Program.
"Educational Administration and Supervision," 6:202-

<sup>&</sup>quot;Educational Administrative 14.

Myron W. Richardson. Making a High-School Program. New York: World Book Company, 1921. 27p.

James H. Harris. The High-School Day. "The American School Board Journal," 70:53, May, 1925.

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TABLE III—TIME BUILDING IS OPEN TO PUPILS, BY GROUPS AND TOTAL

	A. P. A.	CHUCKE	CRAIN A.	A 48.84	
Time		Gre	oup		
A.M.	I	11	III	IV	Total
6:00	0	2	1	0	3
6:30	0	0	0	1	1
7:00	2	7	6	5	20
7:30	4	13	13	14	44
7:40	0	1	0	1	2
7:45	3	12	10	12	37
7:50	0	3	0	2	5
7:55	0	1	0	0	1
8:00	11	35	27	20	93
8:10	0	3	2	4	9
8:15	7	6	5	3	21
8:20	2	2	1	0	5
8:25	1	2	2	0	5
8:30	7	8	12	6	33
8:35	0	3	0	0	3
8:40	1	.5	2	2	10
8:45	. 2	3	1	0	6
8:55	1	ŏ	0	0	1
9:00	i	0	0	0	1
Median	8:15	8:00	8:00	8:00	8:00

Just as there is a tendency for small schools to commence a little later than large schools, so there is a tendency for the smaller schools to open the building to pupils a little later. This fact is shown by the median in Group I, which is 8:15, whereas the median is 8:00 in the other groups.

By comparing the time set for admitting the pupils to the building and roll-call of the schools, for which both of these periods were reported, it was possible to determine how long pupils are permitted in the building before the opening of the school. The tabulation for 103 schools that reported these items is given in Table IV. The mode is 30 minutes, which is

TABLE IV—TIME ELAPSING BETWEEN ADMIT-TING PUPILS TO BUILDING AND ROLL-CALL

		Gro	up		
Minutes	I	II	III	IV	Total
0	0	3	0	1	4
5	1	0	0	0	1
10	1	1	1	1	4
15	1	6	3	2	12
20	2	1	1	0	4
25	ĩ	2	1	0	4
30	8	4	10	4	26
35	0	1	1	0	2
40	Ö	1	1	3	5
45	2	- 5	2	1	10
50	0	2	0	2	4
55	o o	1	2	1	4
60	0	6	θ	2	8
65	1	1	0	0	2
75	1	2	2	1	6
90	ō	1	. 0	2	3
105	0	0	1	1	2
120	0	0	1	0	1
165	0	1	0	0	1
Mean	31	41	40	46	40

also the median; but the variation is from 0 to 165 minutes. The mean is 40 minutes. That there is a tendency for the smaller schools to allow a shorter time for admitting pupils is indicated by the mean in Group I, which is 31 minutes; in Group II, 41 minutes; in Group III, 40 minutes; and in Group IV, 46 minutes.

#### The Morning Study Period

The importance to the pupils of this early morning period cannot be overestimated. Although there is a tendency for the majority of the pupils to want to arrive in school just early enough to have their wraps put away in time for the roll-call bell, such a practice is not to be encouraged, as a slight unforeseen hindrance will then cause tardiness, something which should by all means be avoided because of the bad effect it has upon the school. But if pupils are to arrive in school some time before rollcall, provision should be made for them to use this time profitably. It is a well-known fact that no period during the whole day is so valuable for study as is this period. If instructors are required to be in their first-period classrooms 15 or 20 minutes before roll-call, as should probably always be the case, pupils could pass directly to their classrooms and there find quiet for study in the morning. But some pupils will arrive 30 or 40 minutes or even an hour before classes begin, if the doors are open early enough. It is not practical to require all the instructors to be on duty as early as that, and if these pupils are left to themselves there vill always be some that drift into visiting and thereby disturbing others and forgetting their own need of study.

Some room supervised for study should, therefore, be provided for those early arrivers

from the time the doors are open till classes begin or at least till all the instructors are required to be in their classrooms. The best arrangement is to have such a room presided over by the same instructor throughout the year. In that case this instructor should be relieved of a corresponding amount of other extracurricular duties, and in almost any corps of teachers one instructor can be found who would prefer this early morning responsibility. If that cannot be arranged, the teachers could assume this responsibility by turns, either a day or a week at a time. If proper provision for study is made, a comparatively long period between opening of doors and the beginning of school is to be encouraged. How the four schools that report opening the doors to the pupils at exactly the time when class is called can justify that practice, is difficult to comprehend.

The Dismissal Time

The dismissal time for 102 schools was found to be as indicated in Table V. The spread is found to be from 12:30 to 4:40, with 4:00 as

	V-TIME	OF I	DISMISSAL TOTAL	, BY	GROUPS
Time			roup		
A.M.	I	II	III	IV	Total
12:30	0	0	1	0	1
1:00	0	1	0	0	1
1:25	1	0	0	0	1
1:30	0	0	0	1	1
2:05	0	0	0	1	1
2:10	0	0	1	1	1
2:15	0	1	0	0	1
9 . 20	0	1	0	0	1
2:30	2	2	0	0	4
2:30 2:35 2:40 2:45 2:55	0	0	0	1	1
2:40	0	2	0	0	2
2:45	0	0	0	3	3
2:55	0	0	. 2	0	2
3:00	0	0	* 2 2	2	4
3:05	0	1	1	1	2 2 4 3 5
3:10	1	3	1	0	5
3:15	2	2	1	1	6
3:20	0	1	1	0	2
3:25	0	2 2 1	. 1 3 2 2 3 0	1	4
3:30	3	2	. 3	1	9 7 4 9
3:35	1	1	2	3	7
3:40	1	1	2	0	4
3:45	1	2	3	3	9
3:50	1	1	0	0	2 4
3:55	0	3	1	0	4
4:00	4	9	0	0	13
4:05	0	2	0	1	3
4:15	0	0	2	1	3 2 1
4:20	0	2	0	0	2
4:35	0	0	1	0	
4:40	0	0	1	0	1
1st Q.	3:15	3:10		2:45	3:05
Median	3:30	3:40		3:10	3:30
3rd Q.	3:50	4:00	3:45	3:35	3:55

the mode and 3:30 as the median. There seems to be no significant difference in the size of schools, as is indicated by the position of the median of the different groups. Although there is an unusual variation in the time set for dismissal, over half of the schools dismiss between three and four o'clock. Further investigation revealed that most of the schools that dismiss real early were forced to do so because of building shortage. They then hold only a forenoon session, the building being occupied by another school under a different principal, usually the junior high school, in the afternoon. There was almost unanimous agreement with the opinion that this plan should be looked upon only as a convenient makeshift till the building program can again catch up with expansion in school population, and that as a permanent arrangement it is unsatisfactory.

In order to obtain information regarding the length of time pupils are permitted to linger in the building after school, the following question was asked: "When are the doors closed after school?" Although a few misinterpreted the question, giving the time the doors are actually locked, regardless of the time the pupils are required to clear the halls of the building, the majority gave the information desired. The earliest time reported for excluding pupils was 3:30 o'clock. Two reported, "doors never closed, night watchman." A tabulation revealed that the mode and median is 5:00 o'clock.

comparing the time fixed for and the time reported for closing the building to pupils for each of the schools that reported both these items, it was possible to determine the length of time pupils are permitted to re-

main in the building after dismissal. This was found to vary from 0 to 300 minutes. A tabulation showed the mode to be 60 minutes, and the median 90 minutes. The mean is 94 minutes, with the first quartile at 60 minutes and the third quartile at 120 minutes. In Group I the mean is 74 minutes; in Group II it is 93 minutes; in Group III, 98 minutes; and in Group IV, 112 minutes.

This shows that there is a decided tendency for the larger schools to allow the pupils to linger longer in the building after dismissal. Although five minutes or less elapse between dismissal and "halls cleared," which was reported by two, is too short a time, there are reasons why this time should not be long. Thirty minutes is in general long enough a time for the pupils to dispose of short interviews with instructors and make themselves ready to leave the building.

#### Consideration for Janitors and Teachers

If pupils are allowed to remain for some time in the building, there are always some who stay much longer than necessary. This interferes with the work of the janitor who should be allowed to proceed as uninterruptedly as possible with the cleaning of the rooms quite soon after dismissal. Instructors need the time after class for being surrounded by air and activity other than that found in the classroom. More recreation after school will make for better teaching the next day. Except under special appointments, instructors should hold only very short conferences with pupils after school. Morning conferences are usually more efficient.

A tabulation of the time allotted for recess at noon indicates that of a total of 105 schools, 39, over one third, do not dismiss at all. This practice is, however, most common in the large schools, for almost three fourths of those in Group IV follow this practice, while only one ninth of those in Group I do not dismiss. Not only do the smaller schools more frequently dismiss, but the time allowed by those dismissing is longer among the smaller schools. In Group I the mean time allowed is 72 minutes; in Group II it is 71 minutes; in Group III, 67 minutes; and in Group IV, 57 minutes. The

	19 14		20,000 d over	29
	pulation			Mean Time Allotted
5,000	to 10,000	 		. 75
10,000	to 20,000	 		. 67
20,000	and over	 		60

distribution of the time set aside for recess at noon as related to the size of the community is set forth in Table VI. As was to be expected, the practice of not dismissing is more extensively found in the larger communities. For the satisfactory arrangement of classes there are distinct advantages in operating school continually through the noon period, especially if the practice of serving lunch can be spread into three periods. And it may well be asked if this practice ought not to become more popular among the larger schools and probably also among the smaller.

Types of Schedules
A tabulation of the number of recitation periods provided for in the day revealed considerable variation in practice. This tabulation for 176 schools is found in Table VII. It will be noted that the number of periods

# TABLE VII—NUMBER OF RECITATION PERIODS PER DAY BY GROUPS AND TOTALS Number of

Recitation		Gro	up		
Periods	I	II	III	IV	Total
4			1		1
5	2	11	6	3	22
6	5	24	7	3	39
7	12	17	22	10	61
8	8	13	9	6	36
9		2	2	6	10
10			3	1	4
11				2	2
12			1		1
Median					7

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varies from four to twelve, that the median and mode is seven which is the number of periods employed by over one third of the schools reporting, and that over three fourths employ a school day of five, six, seven, or eight periods. There seems to be no important relationship between the size of a school and the number of recitation periods employed, except, probably, that no small school reporting employs an excessively large number of periods.

# TABLE VIII—LENGTH OF RECITATION PERIODS AS RELATED TO THE NUMBER OF PERIODS PER DAY

	PI	CHIO	DO.	LER	DAX		
Length of				_			
Periods in	N	umbe	r of	Peri	ods		
Minutes	4	5	6	7	8	More	Total
40			1	4	1	1	7
41-44			2	4	3	4	13
45			5	16	15	6	42
46-59			3	8	5	6	22
60			6	1	1	2	10
61-69		3	3				6
70		6	1				7
71-90	1	4			9.6	2	7
Mode and	Median						45

A tabulation of the length of periods employed in 114 schedules is presented in Table VIII. The time there tabulated includes the time consumed in passing between classes. The time consumed in passing was not subtracted from the length of the periods for the reason that many of the schools do not set aside a specific time for passing, but simply begin the next class when the pupils arrive without the signal of a bell. As will appear below, the number of minutes consumed in passing is, in general, so small that the uniform addition of this time to the actual length of the periods does not greatly modify the comparative length of periods. As is apparent from Table VIII, the 45-minute period is most popular, being the length of period employed by over one third of the schools tabulated. No schedule indicated a period shorter than 40 minutes, and one school employs a schedule with a 90-minute period. There seems to be no significant relationship between the length of the periods and the number of periods employed when that number is over five, but all schools employing five periods use periods over 60 minutes in length, and the four-period schedule uses a 90-minute period.

#### The Passing of Classes

Three questions were asked to obtain accurate information regarding the amount of time consumed in passing between classes. questions were: "Is a definite time assigned for the passing of classes? What is the length of this time, in minutes? If no definite time is assigned for passing of classes, how much time, in minutes, is ordinarily used in this way?" A tabulation of 320 replies to these questions showed that a three-minute period is most extensively employed for passing between classes. Of the 320 schools tabulated, 123 use a three-minute period; 76 use a five-minute period; 55, a two-minute period; 51, a fourminute period; two, each a six- and sevenminute period; and one, a ten-minute period. The explanation was made by the school using a ten-minute period for passing, that a recent fire had necessitated the temporary use of buildings located some distance apart, which, therefore, required this undue length of time for

A three-minute period, which seems to be more extensively used than any other for passing between classes, is undoubtedly sufficient time for making that change in most modern school buildings. But the question may still be asked, will a five-minute period not be more desirable, even if the change can be made in three minutes? It is altogether possible that the two additional minutes of free relaxation between classes are worth more for efficiency of work during the next period than those two minutes added to the actual recitation itself.

General Assemblies
Question six read, "Do you have general assembly every day?" and question seven was

THE TEACHER'S L'ENVOI (With apologies to Mr. Kipling and others.)

When earth's last report card is issued, And all registers signed and O.K.'d, And Institute Records concocted, And all dues and pensions are paid; We shall rest and, faith, we shall need it, Lie down for an aeon or two, With never a "special report" blank To set us to work anew.

Then those who desire may continue Their teaching profession, it's said, Midst a small group of angelic cherubs With a halo above each prim head, They will always pay closest attention, Will understand all that they're taught, Move about without any confusion, And always do just what they ought.

They'll never grow cross or unruly, They'll never be absent or late, They'll never be dirty or ragged, They'll never use lip-stick or paint. They'll not make grammatical errors, They never will say a bad word. They'll never chew gum or eat candy, When they sing, no false note will be heard.

And each poor old tired-out school-marm Will bathe in the fountain of youth, Will dress in the loveliest fashion, Will dress in the lovellest rashlon,
Be perfectly charming, in truth,
Will get her degree with no trouble,
Will travel about far and near,
Will gratify every ambition,
And—save most a thousand a year!
—Fannie Kate Taylor.

a request to check the day of the week when assemblies are held, in case they are not held every day. Three hundred and ten replies to these questions were received. A tabulation of these replies showed that one general assembly per week is most common, being the practice in nearly half of the schools. Two assemblies per week is more common among the larger schools, while an assembly every day is common among the smaller schools. Ten of the larger schools reported general assemblies in sections, the reason being undoubtedly that they possess no auditorium large enough to hold the whole school at one time. Six schools reported general assemblies once every two weeks and two once each month. Forty-five schools reported a general assembly whenever the occasion demanded it, without any provision for it on the schedule. It is likely that many of the schools that hold regular general assemblies also call a number of special general assemblies without reporting such practice in this investigation.

It would seem that at least one general assembly ought to be held per week in every school where there is an auditorium large enough to hold the school. There is probably no place in the school life of the pupil where school spirit, team work, and the like, can better be inculcated than in a properly operated general assembly. This, of course, requires work on the part of some one, usually the high-school principal, but the efficient management of the general assembly should be part of his educational duties in the school.

#### Time for Assemblies

As for the time of day on which general assemblies are held, there is a variety of practices, but the majority of schools hold them some time in the forenoon. This is undoubtedly as it should be, since the forenoon is usually more valuable than the afternoon. Of the 240 schools reporting, 33 employ a movable assembly schedule. They then omit a period for the holding of general assembly and systematically rotate that through the periods of the day. Although this has advantages in that all class ultimately lose an equal amount of time because of general assembly and at the same time the bell-ringing schedule does not have to be disturbed, the more common practice is undoubt-

edly to be preferred, that of having a special bell schedule for assembly days and thus shortening all the periods of the day a trifle when general assembly is to be held.

As to the day of the week on which general assemblies are held, the following figures express the situation: Friday 101, Wednesday 83, Monday 51, Thursday 46, and Tuesday 36.

TABLE	IX-REPLY	TO OT	ESTION	HIE DE	OVISION
	MADE FOR				
Reply	I	II	III	IV	Total
Yes	9	41	25	16	91
No	34	66	62	98	101

The reply to question seven, "Is provision made for supervised study?" is given in Table IX. Of the 282 replies, less than one third reported the employment of the supervised-study plan. Of these, two added the explanation that it was used only for grades nine and ten and one stated "the laboratory plan" is used. Some of those that reported that they are not using the supervised-study plan volunteered the information that the plan was abandoned a year or two ago.

Supervised Study The fact that the supervised-study plan is not so very popular and that schools have given it up after giving it a trial, does not necessarily mean that the plan is impractical from the point of view of increasing the pupils' efficiency in study. Supervised study is a little more difficult to administer. It requires a longer period and this in turn requires either a decrease in the number of periods in the day or a lengthening of the school day. A study of the length of period employed by the schools that reported supervised study, shows a variation from 45 minutes to 90 minutes, with 60 minutes as the mode, but the 70-minute period followed quite close in popularity. The median is 64 minutes and the mean is 66. When this is compared with Table VIII, where we find that the median length of period for all schools is 45 minutes, we can see that the adoption of the supervised-study plan necessitates a complete revision of the school program. And when these facts are again viewed in connection with Table VII, where we further find that a large number of schools need an eight-period day, and that one school has to employ twelve periods in the day in order to make provision for all the irregular pupils, we can easily see a profound desire to get away from the lengthened period required for supervised study. But it is possible that with proper system in connection with the organization of the courses and especially with the registration of pupils, the number of irregulars can be materially reduced, and as a consequence fewer periods in the school day will be necessary.

Four of the schools that reported employ a shifting schedule. The classes are all grouped in blocks, and these blocks are assigned periods as in the common schedule, but the blocks are assigned to different periods on the various days of the week. Any one class, therefore, comes at a different time of the day, each day of the week. Both the construction and the operation of this type of schedule is discussed quite fully. by Marsh in his "Making a High-School Schedule." Of the 171 schedules that were obtained for this study, only four of the rotating or shifting type appeared, which seems to indicate that this is not a popular type of schedule. Of the four that appeared, two have the periods of different length so that each class is benefited by both long and short periods through the

The Subject Arrangement

An attempt was made to determine if practice has discovered a preference as to the best arrangement of subjects in the schedule. It was felt that, if certain periods are more desirable for specific classes than other periods, this ought to express itself in a comparative (Concluded on Page 139)

# Cost-Tendency Charts Applied to City-School Work

Arthur J. Peel, Brookline, Mass.

The ability to interpret expense and cost figures is not as general as is sometimes supposed, and there are few public-school superintendents and business managers who have not at some time or another had to contend with the member of the board who is always asking for statements and figures "in a way that we can understand." Occasionally, however, the shoe is on the other foot. In a certain city that I know well, the superintendent dreads meeting his board when financial matters are on the agenda, because one of the members of the board is a public accountant, and is continually asking for items of information which the superintendent's books do not reflect, but should.

It has been repeatedly stated in articles which have appeared in the JOURNAL, that the value of any kind of cost-data should be determined only to the extent to which the information gathered, is used and applied to current conditions. Mere statistical costs are seldom worth the time and effort necessary to produce them. It may be contended by some that since budgets are governed largely by known expense, or by expense estimated on the basis of known costs covering a past period, statistical cost figures are of considerable value if only to provide a basis on which to estimate future expenditure. This, of course, is true, but if cost figures are recorded only for the purpose of accumulating records, and not with the idea of current control of expense factors, then we are missing the most important object of modern cost-finding methods.

The Meaning of Cost Tendencies

The development of scientific accountancy has been much accelerated in the past few years, until we have now arrived at a point where we are not content to know our departmental and unit costs, month by month, but, on the basis of what is, we are now concerned with what will be, if increases or savings continue in the same ratio for another month, or for the balance of the fiscal year. In other words, we are concerned now with the cost tendencies. To be able to visualize ultimate increases or savings in classified expenditures, on the basis of current expenditures, is of considerable value and strengthens the hands of the superintendent or committee burdened with the responsibility of getting the most out of the school dollar. Failure to realize the meaning of even a small increase in the cost of any particular item of

school expenditure, has often resulted in inconvenience and misunderstanding. An increase of five per cent in one month, in the cost of administration and supervision, may seem a small thing, and for this reason it may not be analyzed and properly explained; but multiply that increase in dollars, twelve times, and we begin to get some idea of what it means if it is allowed to continue for one year. This is what is meant by cost tendencies.

To record cost tendencies only in figures, will not convey a clear impression to a busy man, nor will it be convincing to a board or com-To be really effective it should be charted. In Chart A, shown here, we have the story of one month's expenditure for certain departmental functions. The figures in column on the left-hand are not percentages, neither are they amounts in dollars; they are units for showing proportionate increases or savings. Actual amounts, in equal divisions, may be used, however, if desired; each figure might be a unit of \$100, for example, the range being from \$100 to \$2,000 both ways. The zero line is the median. It may serve also as the authorized budgetted amount, or estimate, for each class of expense indicated. An increase will indicate an amount over and above the budget; a saving, an amount saved on the monthly

What Chart A Represents

The black portion of each cone represents the actual increase or saving effected in one month -the last completed month; this portion is filled in before the angle is drawn, for the reason that the height of the cone depends entirely on the height of the darkened portion. For example; we find that the cost of supervision ran five per cent over the monthly proportion of the annual estimated amount for this purpose. If we increase the monthly excess twelve times, we can determine where the apex of the triangle will come on the scale. By this means we visualize just what will happen if we fail to correct the conditions which were responsible for the increased expenditure in the last month. If we use actual dollars for our scale, we can show in actual amounts, our theoretical overexpenditure and under-expenditure. If conditions are not corrected, this theoretical deviation will become actual. In the chart shown here, we find that if existing conditions are allowed to continue, the result at the end of the

fiscal period, will be a *net* overexpenditure of 38 units of value. If dollar values are substituted in the figure column, we shall have this in terms of dollars, of course.

A separate chart must be prepared for each month; for this reason it is advisable to have a number of these forms printed with the permanent features which include everything except the portions that are filled in from the cost records, and the resultant pyramids.

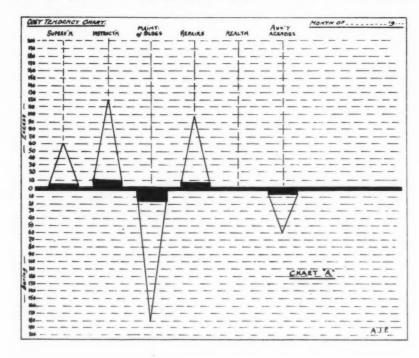
This method of charting cost tendencies applies equally well where fixed budgetary provisions govern expenditure, for the reason that even when the annual amount which may be expended for various objects, is fixed and permits of no leeway, it is impossible to keep within one-twelfth of the annual budget, each month. The last chart prepared, and which covers the last month of the fiscal year, should show no darkened portion above the median line. It may show completely filled-in angles below the line, however, since it is frequently possible to save on annual budgetted expense items.

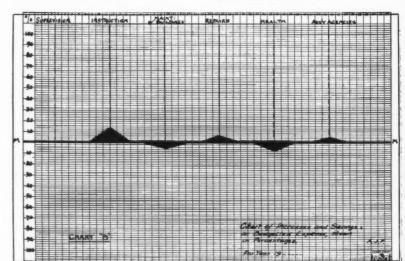
#### Another Form of Chart

This brings us to a consideration of the second chart shown, Chart B, which represents the total increases and savings in each department. In many school departments a certain latitude is allowed, which permits of overexpending, when necessary, in one department, providing a saving equal to the total overexpenditure can be effected in other departments. It will be noted that in this chart, we are using percentages only, and this is sufficient for our purpose. If we total the percentages of increase above the line, and then total the savings below the line, we shall find that we have a net increase over the estimated total expenditure for all purposes, of ten per cent. If we compare Chart A with Chart B we shall discover that the only expense which was kept strictly within the estimate, was that for administration and supervision.

The superintendent or business manager who has the advantage of a system of control such as I have outlined here, will never be in the dark concerning his actual and ultimate costs, providing, of course, that he has the complement—a scientific and modern system of cost accounts. In one school office in which this feature has been introduced, the superintendent reports that for the first time in his experience, he knows what it is to be free from worrying uncertainties as to how his costs are developing in certain departments. The monthly chart is prepared promptly by one of his assistants, and it is the only thing that the superintendent

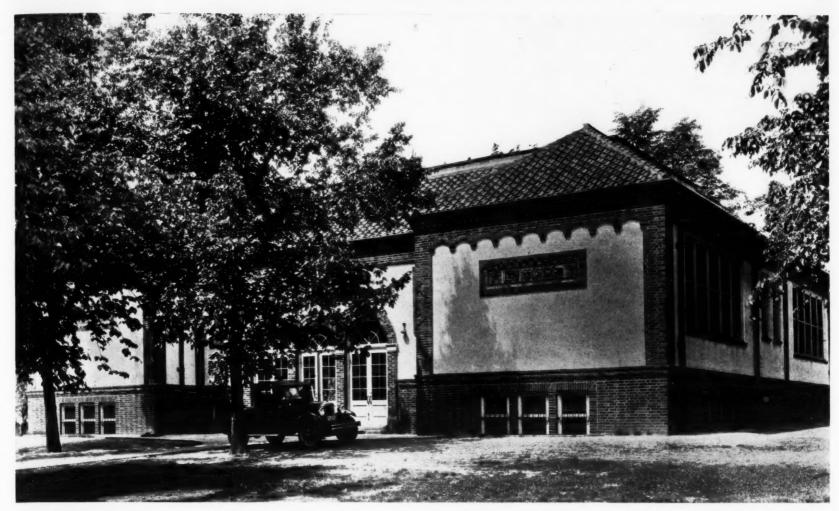
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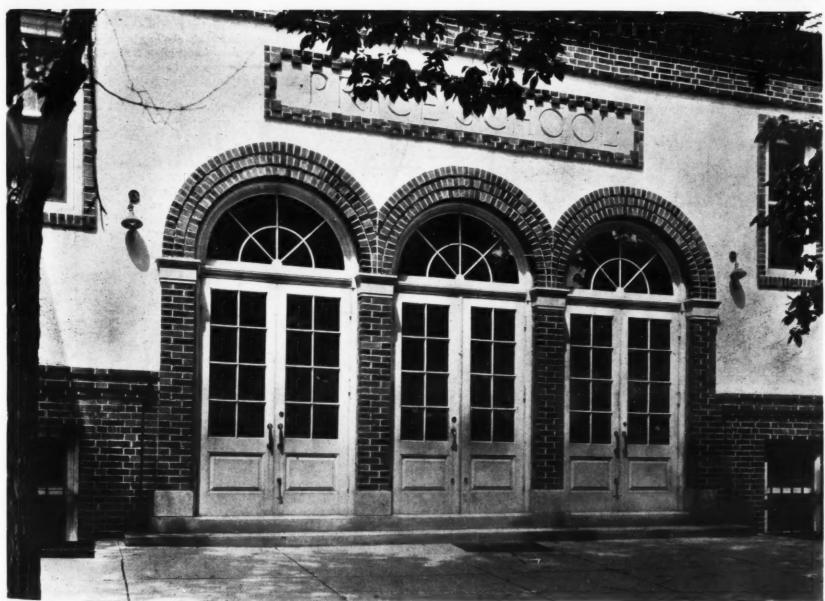
(RIGHT—ABOVE) CHART B. ACTUAL INCREASES AND SAVINGS SHOWN IN PERCENTAGE FORM.

(LEFT) CHART A. SAVINGS AND EXCESS COSTS WITH INDICATION OF TENDENCIES.



PRICE SCHOOL, DISTRICT 34, ST. LOUIS COUNTY, MO.

Study & Farrar, Architects, St. Louis, Mo.



ENTRANCE DETAILS, PRICE SCHOOL, DISTRICT 34, ST. LOUIS COUNTY, MO. Study & Farrar, Architects, St. Louis, Mo.

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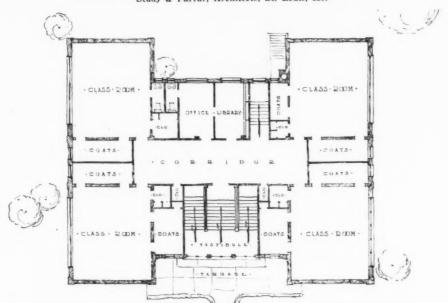
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DETAIL, PRICE SCHOOL, DISTRICT 34, ST. LOUIS COUNTY, MO. Study & Farrar, Architects, St. Louis, Mo.



FLOOR PLAN, PRICE DISTRICT SCHOOL, ST. LOUIS COUNTY, MO. Study & Farrar, Architects, St. Louis, Mo.

THE PRICE DISTRICT SCHOOL IN ST. LOUIS COUNTY, MISSOURI Designed by Messrs. Study & Farrar, Architects, St. Louis, Mo.

During the past few years a good deal has been said and written about the necessity of giving the rural school districts of the country improved schoolhouses, that is, buildings that will compare, in a degree at least, with the average school in the cities. The passing of "the little red schoolhouse" has become a byword. Governors and school superintendents have been elected to office by the force of this phrase and political campaigns have served to stir up the community spirit. In a large number of states, improvement in rural schoolhouse building has already begun.

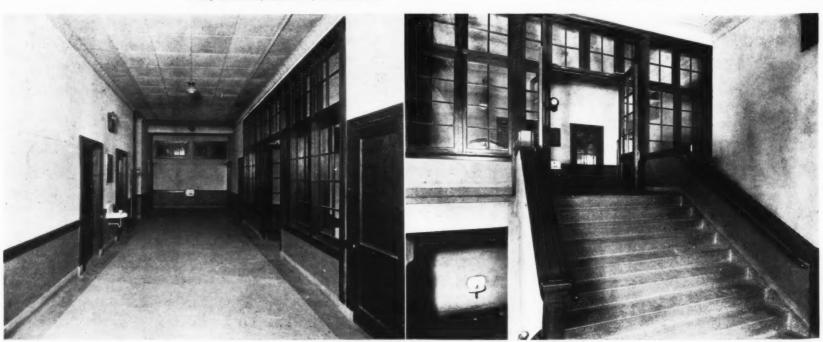
In many states, it is the duty of the county board of education to work out concrete plans so that the various school districts may be supplied with the most practical modern schools. Simple as it may appear, the method of going about the work is not always clear to the county board. There are certain fundamental steps which must be followed in order to intelligently carry out the plan.

First, it is necessary to make a general survey of the school district; the population must be studied; the approximate wealth of the community must be ascertained; and the present bonded indebtedness must be recorded.

As many of the school buildings are erected with the proceeds of a bond issue, and as the average school official is unfamiliar with the details involved in issuing and selling a bond issue, it is quite necessary that the board call in some expert who is familiar with all the details connected with the floating of a bond issue. Such an expert acts in the capacity of an adviser and his services are of the utmost value.

The next step is the selection of a consulting architect. As the bonds are to be issued for the purpose of supplying funds for the building, it is necessary that some definite information must be supplied relative to the needs of the school, that the bond issue will be sufficient for the building proposed. The cost of the preliminary consultation of the bond expert and the architect may be met from the general current funds.

After the bond issue has passed, the expense of the major work of the bond expert and architect must be paid for out of the funds of the bond issue. The necessity of dealing with an architect of experience and training is of prime importance. One only has to visit a school erected by a "jerry" builder, to realize the im-



INTERIOR VIEWS OF THE PRICE SCHOOL, DISTRICT 34, ST. LOUIS COUNTY, MO. LEFT, CORRIDOR; RIGHT, DETAIL OF STAIRWAY. Study & Farrar, Architects, St. Louis, Mo.

portance and value of an architect experienced in school-building requirements. It is always possible to secure the services of an experienced architect in the cities; even in districts remote from the city, it is entirely possible to secure the services of a good schoolhouse architect.

A typical example of intelligent cooperation between the school board, the bond expert, and the architect is afforded by the new Price School in District No. 34, St. Louis county, Missouri. This district embraces about five square miles, claims a population of seven hundred, and has an assessed valuation of \$2,003,600. The estimated borrowing power of the community is \$100,180.

The board of education of St. Louis county, realizing that about half of the student's life is spent in the school building, stressed the need for a good building that would give every advantage of a modern school and would have a distinctive touch and character. The results of their efforts are shown in the fine building which has been produced.

The Price District School in its appointments offers everything that the architect and builder sought to provide, and in its completed state reflects great credit upon the school board and upon the architects, Messrs. Study & Farrar, of St. Louis.

The building is designed in the Italian style of architecture, which was selected as most appropriate for a building of this type. The building represents a simple, straightforward design, with little exposed woodwork, utilizing large masses of material in producing the desired effect. The result is a splendid building, bright and cheerful in aspect, sincerely and honestly built, and capable of serving at least two generations to come.

In the Price District School have been combined the essentials of good schoolhouse design which differentiate the city school of today from that of thirty or forty years ago: Namely, absence of a damp, dark cellar; fireproof concrete foundation; isolation of the central heating plant; use of the open-plan idea for ample light, air, and circulation; economical and scientifically-planned classrooms with unilateral lighting. Everything in modern schoolhouse design has been incorporated in the details of this building, making it practical, serviceable, and sanitary throughout, and at the same time giving it a beautiful and yet distinctive, scholastic aspect.

Entering the front vestibule, one steps into the atmosphere of a modern school. The wide stairway leading to a well-lighted, broad corridor is impressive. A feature of the building is a small library with well-designed bookcases. The interior woodwork is in oak. The floors in the corridor are of terrazzo, with a dark border and base, making an effective floor treatment. All stairs have been equipped with nonslip treads.

The classrooms are provided with blackboards, surmounted with cork panels for the attaching of notices and pictures. All inside window sills are of tile. Classroom doors are of glass and each room has a teacher's closet for disposing of her personal possessions. The electric lighting has been given careful thought and effective ceiling lights have been installed. In the basement are located a large playroom for use in inclement weather, while in an isolated section have been placed the heating plant and the janitor's room.

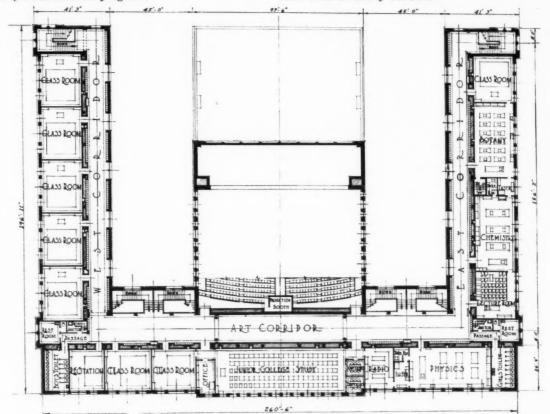
The architectural effect of the building has been improved by the insertion of two panels of Moravian tile on the front façade, which have been especially selected to blend with the brickwork. The tiled effect, both in its quaint design and color, has a special attraction, and the subjects on the panels are sufficiently suggestive in character to arouse the interest of the children.

# The Senior High School and Junior College at Muskegon, Michigan

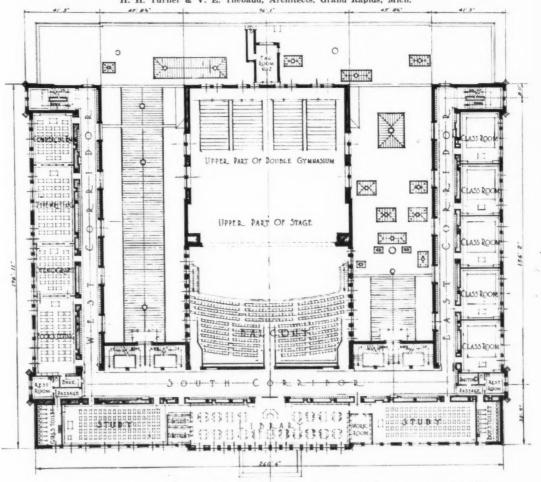
Designed by H. H. Turner and V. E. Thebaud, Architects, Grand Rapids, Mich.

The new senior-high-school and junior-college building at Muskegon, Michigan, forms a unit of a central educational group which is being developed in an interesting central site and which includes a number of buildings forming a recreational as well as an educational group.

The senior-high-school and junior-college building is a three-story structure housing two schools and affording an important part of the city's educational program. The building is in the form of a huge square, the upper floors forming a great letter E. There are eight entrances giving access to the main corridors of the building, and carefully related to the stairways. There are four fireproof stairways so located and designed that the utmost safety and convenience of the occupants of the building are assured. It will be noted that travel distance, as well as safety to life have been carefully studied.



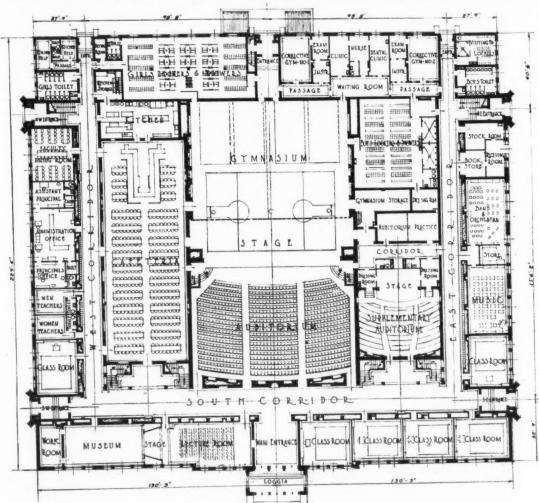
SECOND FLOOR PLAN, SENIOR HIGH SCHOOL AND JUNIOR COLLEGE, MUSKEGON, MICH. H. H. Turner & V. E. Thebaud, Architects, Grand Rapids, Mich.



FIRST FLOOR PLAN, SENIOR HIGH SCHOOL AND JUNIOR COLLEGE, MUSKEGON, MICH. H. H. Turner & V. E. Thebaud, Architects, Grand Rapids, Mich.



SMALL AUDITORIUM FROM STAGE, SENIOR HIGH SCHOOL AND JUNIOR COLLEGE, MUSKEGON, MICH.



GROUND FLOOR PLAN, SENIOR HIGH SCHOOL AND JUNIOR COLLEGE, MUSKEGON, MICH. H. H. Turner & V. E. Thebaud, Architects, Grand Rapids, Mich.

The main feature of the ground floor is the auditorium, which is so arranged that the stage forms the gymnasium. This room is located in the center of the building and extends up through the second story. The room has two main entrances from the ground floor, three entrances from the first floor to the balcony and two entrances to the upper part of the balcony from the third floor. The balcony, which is fireproof, is constructed of concrete and steel. A motion-picture booth is provided which is of ample size to accommodate the means of instruction and for first-class motion-picture and stereopticon entertainment. A portion of the stage has a lift for scenery and is equipped so that theatrical entertainments may be undertaken.

The gymnasium is ample for all ordinary uses for both boys and girls and has adjoining it showers and lockers for both boys and girls. The gymnasium is so arranged that a large movable partition can be drawn, dividing it into two parts so that it may be used simultaneously for boys and girls without interference. The gymnasium is also separated from the auditorium by means of a structural steel fireproof curtain, weighing eleven tons and operated by electric-hoisting machinery. Hinged to the ceiling of the gymnasium are four steel bleachers, which may be raised and lowered by motors. This movable seating increases the total seating capacity of the auditorium to 1,700.

In interest the second important room on the ground floor is the cafeteria, which is large enough to accommodate 400 students at each sitting. A large kitchen is provided and is equipped with labor-saving machinery. The cafeteria has a tile floor and walls faced with enamel brick. Drinking fountains in the cafeteria are set in the walls and receptacles for glasses are similarly provided. The equipment is the most modern, durable, and efficient.

On the ground floor there is also a small supplementary auditorium, which serves for various minor school gatherings and for community meetings, etc. The room is equipped with a stage, dressing rooms, and toilets, and seats 200 persons. The walls are paneled in oak and finished in light gray, making an unusually attractive room.

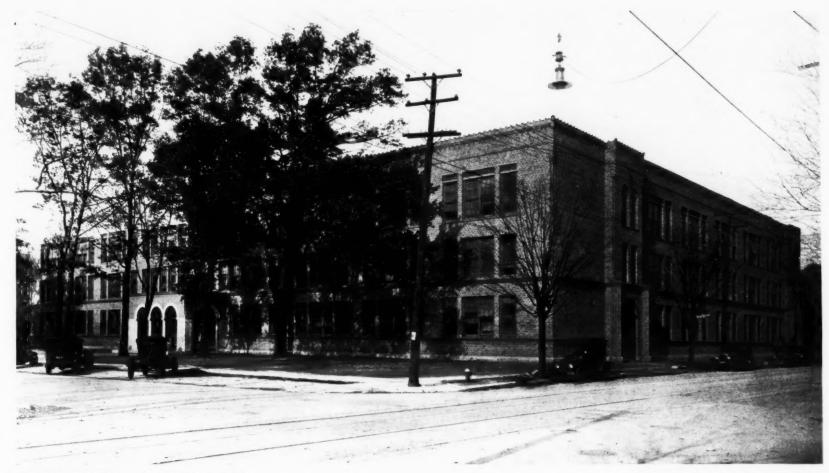
In addition to the large rooms enumerated above, the first floor contains a museum, a large lecture room, six classrooms, a series of offices and special rooms for the teachers, administrative offices, and various special rooms. The museum is intended to house instructional materials and other articles of local historic interest. It adjoins a lecture room and is available for use by local organizations.

The high-school departments extend through the first floor into the second floor and include nine classrooms, a suite of rooms for commercial studies, two study halls, and a library which seats 72 readers. The accommodations for the junior college are provided on the second floor. These consist of a large study room, a number of conference rooms, nine classrooms, and a series of laboratories. The last mentioned department is shared with the senior high school.

Anticipating the demands of advanced instructional methods, all of the classrooms have been provided with outlets for electric lanterns for the projection of pictures.

The administrative offices include a general office and separate private offices for the principal and assistant principal. A fireproof vault has been provided for the storage of records.

There is a bookstore 14 x 15 ft. in size, a receiving room for supplies and equipment 11 x 20 ft. in size, and a workroom of 250-sq.-ft. area. A separate entrance is provided so that trucks may deliver material directly into the receiving room.



SENIOR HIGH SCHOOL AND JUNIOR COLLEGE, MUSKEGON, MICH.

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The ventilating fans, pumps, etc., are provided in the basement floor which is not shown in the accompanying plans. The boilers are placed in a separate building from which steam is distributed through underground piping to the five buildings on the school campus.

The building is constructed of fireproof materials throughout and every item has been studied to reduce maintenance and depreciation cost and to lessen wear and tear.

The exterior of the building has been kept as simple as possible and the terra cotta and brick

H. H. Turner & V. E. Thebaud, Architects, Grand Rapids, Mich.

have been carefully chosen for color that will produce an air of quiet simplicity. Attention has also been given to the probable action of the elements which enhance the appearance of the building.

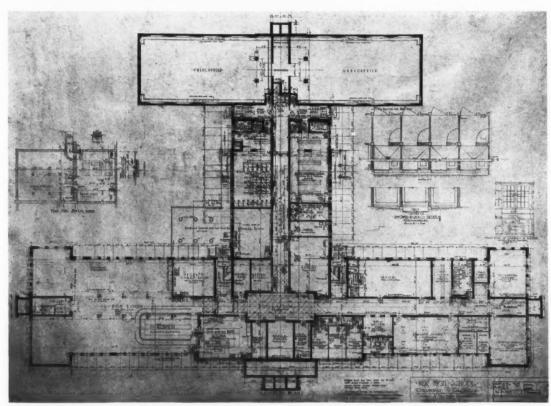
(Concluded on Page 128)



STAGE OF MAIN AUDITORIUM, SENIOR HIGH SCHOOL AND JUNIOR COLLEGE, MUSKEGON, MICH.



DETAIL OF FRONT ENTRANCE, COLUMBUS HIGH SCHOOL, COLUMBUS, GA. Starrett & Van Vleck, Architects, New York City.



BASEMENT PLAN, COLUMBUS HIGH SCHOOL, COLUMBUS, GA. Starrett & Van Vleck, Architects, New York City, N. Y.

#### THE COLUMBUS, GA., HIGH SCHOOL Roland B. Daniel, Superintendent of Schools, Columbus

On a commanding highland, embracing an attractive wooded tract of land near the center of the future population of the city of Columbus, Georgia, surrounded by beautiful pines and other trees characteristic of this section, is located the new Columbus High School, facing the old part of the city which is responsible for its existence. Adjoining this school site the city owns twenty acres of land on which are to be developed a park and playgrounds which also may be used by the pupils of the high school.

Since it is situated in the residential section of the city, the Georgian-colonial style of architecture was adopted, to blend harmoniously with the surroundings and at the same time to embody the traditions of the mother country and the character of the early settlers of this section.

The plan of the building gives a façade of 307 feet and ties architecturally into a large tract of land. With a soft, dignified air the center or main motif rises to a fitting climax in a cupola which is reminiscent of the early bell tower.

To carry out the character of the design, building materials were selected which would give the correct effect. A particular make of common red brick has been used to give the appearance of age and the effect of having been made by hand. Limestone, Georgia granite, and marble have been used in the exterior trim. The corridors and steps are made of concrete. All floors except the corridors are maple, and light oak is used as an interior trim throughout. Furniture and other equipment have been finished to match the building trim.

Especial attention has been paid to future extensions which will become necessary from time to time, and the building is designed to carry itself from an architectural standpoint either as a whole or in part.

The building as completed accommodates one thousand pupils. The wings, to be added when needed, will accommodate five hundred more.

On the ground floor are located the kitchen and cafeteria, with a seating capacity of five hundred; a drawing room, a manual-training shop, domestic-science rooms, an armory, storerooms, medical-inspection rooms, a boiler room, and two gymnasiums with shower baths, one for boys and another for girls.

The first floor contains the administration offices, teachers' restrooms, an auditorium with a seating capacity of 1,200, and classrooms for the academic subjects.

On the second floor may be found the library, a study hall, and classrooms for teaching mathematics and science.

Alcoves were provided on each floor for lockers. The toilets, which are located also on each



STUDY HALL, COLUMBUS HIGH SCHOOL, COLUMBUS, GA.

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FACADE, COLUMBUS HIGH SCHOOL, COLUMBUS, GA. Starrett & Van Vleck, Architects, New York City, N. Y.



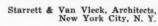
GIRLS' GYMNASIUM, COLUMBUS HIGH SCHOOL, COLUMBUS, GA. Starrett & Van Vleck, Architects, New York City, N. Y.

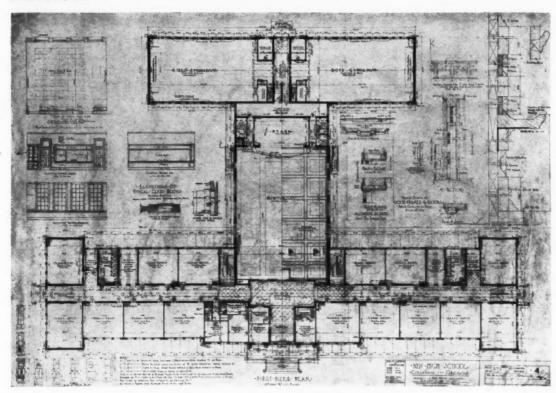
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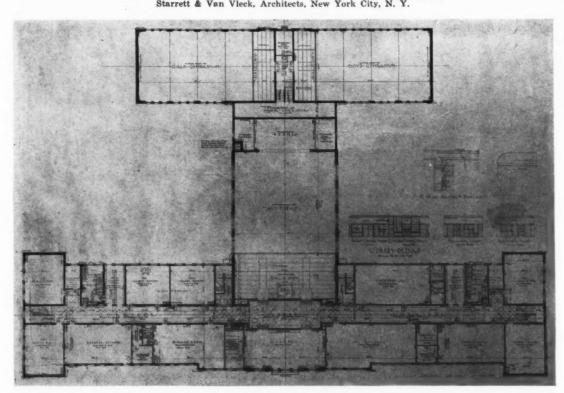


COLUMBUS HIGH SCHOOL, COLUMBUS, GA.





FIRST FLOOR PLAN, COLUMBUS HIGH SCHOOL, COLUMBUS, GA. Starrett & Van Vleck, Architects, New York City, N. Y.



SECOND FLOOR PLAN, COLUMBUS HIGH SCHOOL, COLUMBUS, GA. Starrett & Van Vleck, Architects, New York City, N. Y.



CAFETERIA, COLUMBUS HIGH SCHOOL, COLUMBUS, GA.



CHEMISTRY ROOM, COLUMBUS HIGH SCHOOL, COLUMBUS, GA.

floor, open into the alcoves to avoid direct entrance into the corridors.

The cost of the site was \$65,000 and equipment \$35,000. The building, including lighting, plumbing, and heating cost \$325,000, making a total of \$425,000.

The architects were Messrs. Starrett and Van Vleck of New York City, and the associate architects were Messrs. Hickman and Martin of Columbus, Georgia.

—A previous study of the New York Commission on Ventilation which recommended the window system of ventilation rather than the newer fan system, has caused considerable controversy among educational authorities and ventilating engineers. As a result, the Commission is conducting special studies in Syracuse and Cattaraugus county, New York, in connection with the urban- and rural-health demonstrations which the Milbank Memorial Fund is aiding.

# The Annulment of Teachers' Contracts

W. W. Haggard, Principal of the Rockford, Ill., High School

In discussing the annulment of teachers' contracts these are some of the questions that deserve consideration: Is refusal on the part of the board of education to reemploy, annulment of a contract? Does the right to employ imply the right to dismiss? May a teacher be dismissed without sufficient cause? Is employment by a resolution of the board of education sufficient to be binding? If the board of education closes the school before the end of the term, can the teacher recover compensation for the remainder of term? Must a board of education give a teacher a hearing before discharging him? What are the commonly justified causes for annulment of teachers' contracts according to ruling-case law?

The annulment of a teacher's contract in common parlance means the dismissal of the teacher. The refusal on the part of the board of education to renew a contract with a teacher is often understood as dismissal, but dismissal presupposes certain contractual rights; therefore, it may have no legal relation to the possible moral obligation on the part of the board to reemploy.

In the absence of statutory restrictions, as a tenure law, the right on the part of the board of education to employ implies the right to dismiss, even though the teacher is employed for a definite number of months.1 Dismissal must be for a sufficient cause unless otherwise stipulated in the contract.2 A board performing its functions under a statute specifying the causes for dismissal may not remove a teacher for any other causes.3 Some courts have ruled differently, however.4 Some state laws clothe the board with absolute power of dismissal not reviewable by the courts.5

It is the practice of some boards of education not to grant contracts, the reason being that the contracts are not regarded by the teachers as mutually accepted and binding agreements. The teachers resign and accept other positions to the extent that little importance has come to be attached to the contracts. Resolutions by the board of education employing teachers may lack the essentials of a well-constructed contract, such as definiteness, certainty, and surely mutuality. Prof. H. R. Trusler, in his book, "Essentials of School Law" discusses an Indiana case in which a teacher's damage suit was thrown out of court on the grounds of the indefiniteness of the directors' resolution electing her to a position.6 In some states the written contract is required by law, and under such a statutory restriction the teacher cannot collect for damages even if insufficient cause for annulment is shown. The board may not be legally required even to pay for satisfactory services rendered.7 This same difficulty may apply to the oral contract.8

The statutes in most of the states require that the board of education shall give notice to a teacher if charges are preferred, and an opportunity for a hearing before a discharge. It is also stated that it is the common law and in accord with the plainest principles of justice.9

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Should school be interrupted or discontinued by an epidemic or a fire, is the board liable for teachers' salaries during that time? Where the Robinson v. School Directors, 96 III. A604.
Wallace v. School District, 50 Neb. 171; Thompson Gibbs, 34 L. R. A. 548.

Rennedy v. Board of Education, 82 Cal. 483; hompson v. Gibbs, 97 Tenn. 489.

School Directors v. Ewington, 26 III. A. 379.
Gillan v. Board of Regents, 88 Wis. 7, 24 L. R. A. 6.

Fage 177.
Fairplay School Township v. O'Neal, 127 Ind. 75.
Hutchins v. School District, 128 Mich. 177.
Benson v. District Township of Silver Lake, 100 Iowa, 328, 69 N. W. 419; Morley v. Power et al., 73



failure of a teacher to perform her contract to teach a school is due to the acts of the district officers which prevented her from doing so, she being able and willing to perform her contract, she is entitled to compensation for the entire term of the contract.10 A school teacher regulevied for teachers' salaries is in excess of the debt limit, rather than the amount actually collected.14

The major causes justifying the annullment of teachers' contracts are incompetency, negligence, immorality, and insubordination. (In cases where the teacher has been proved guilty of these offenses, courts have sustained the actions of boards of education. The courts have ruled that boards of education are intrusted with certain standards of society to maintain by the legislature.

Incompetency. Miss C. was employed to teach in the elementary schools of an Illinois city beginning in September. The board of education in January passed a resolution requesting her resignation, to take effect at once, because of inability to employ efficient methods of instruction and failure to maintain proper discipline. Instead of accepting the request to resign she reported for duty the next school day, the first day of February. The board then convened on the morning of that day and discharged her. Suit was instituted to recover compensation for February, but the court held that the option of the directors to discharge the teacher was sufficiently and rightly exercised. even when the resolution requesting her resignation was passed.15

Incompetency may refer to lack of discretion and the exercise of an uncontrollable temper.

larly elected to a position in a school and standing ready and able to discharge the duties of the position may by mandamus compel the issuance of a warrant upon the treasury for the payment of the stipulated compensation.11 In the case of time lost because of an epidemic the teacher cannot be required legally to make it up providing the teacher holds herself in readiness for the reopening of school. The teacher cannot be held responsible for community's misfortune.12 On the other hand the teacher may not be able to collect his salary in the case of a school closed for lack of funds, especially if the board is functioning under a statute forbidding expenditures for all causes beyond the debt limit or the appropriations authorized.<sup>13</sup> The school district must show, however, that the amount

One of the male pupils asked his teacher, Mr. R.,

<sup>10</sup>School District No. 8 v. Estes. 13 Nebr. 52; Smith v. School District No. 69, Mich. 589.
 <sup>11</sup>State v. Lonsdale School Board, 4 Higgins (Tenn.)

if he had said that he (pupil) was the dullest scholar in the school. After some argument between the two about the matter, the teacher in anger struck the pupil on the head violently and pushed him into a seat. The directors while investigating the matter before the school examined some of the pupils; the teacher being present, interrupted some of the pupils during their answers to the directors and called them liars. The teacher was dismissed by the direc-Suit for damages was brought and the court held that these circumstances demonstrated that said R. did not possess the requisite qualities of temper, discretion, and the fortitude of a competent teacher, and the directors were justified in discharging him.16

There have been other cases<sup>17</sup> where the court sustained the board of education for discharging teachers weak in maintaining discipline, unskillful instructional methods, and lacking competent control of themselves. This seems only reasonable and is in keeping with the presentday educational philosophy that the school exists for the child.

Negligence. 'Mr. B., a teacher in a rural school in Illinois was dismissed by the directors because of tardiness two or three days a week, the charge being negligence. The parents, knowing their children could not enter the school building until the teacher arrived, sent them to school late to avoid standing outside, especially in inclement weather. The court held that this was sufficient cause for dismissal.18

The school directors of a rural school district in Kansas, employed one Mr. D. to teach school for a term of eight months. After teaching four months the district board dismissed him for negligence. Suit was brought to recover salary for remainder of term. The lower court awarded damages to Mr. D.

Upon appeal by the defendant the supreme court held that the directors were justified in dismissing D., but the case was reversed because of error. This instruction, Sec. 6184, General Statutes of 1901, was not read to the jury of the lower court: "The district shall contract and hire qualified teachers, for and in the name of the district, which contracts shall be in writing and shall specify the wages per week, or month, as agreed upon by the parties, and such contract shall be filed in the district clerk's office; and in conjunction with the county superintendent may dismiss for incompetency, cruelty, and negligence."19

Miss A., employed to teach in one of the district schools of Kansas was discharged for crocheting and writing too many letters during school hours. Suit was brought, but the court sustained the action of the school directors as in keeping with proper legal procedure and for thebest interests of the children of said community, as the school was suffering from negligence.20

It is evident from these cases that ruling-case law does not justify carelessness and negligence on the part of a teacher who is responsible for the progress of a school. No further comment is necessary.

Insubordination. Another major cause for dismissal of teachers is the violation of the reasonable rules and regulations of the higher

<sup>322.

&</sup>lt;sup>12</sup>Randolph v. Sanders, 54 S. W. (Tex.) 621.

<sup>13</sup>Wolf v. School Districts, 27 L. R. A. (N. S.) 891.

<sup>14</sup>Rudy v. School District, 30 Mo. A. 113.

<sup>15</sup>Olney School District v. Christy, 81 Ill. A. 304.

<sup>16</sup> Robinson v. School Directors, District No. 4, 96 604

<sup>A. 604.
City of Crawfordsville v. Hays, 42 Ind. 200.
Eastman v. District Township of Rapids, 21 Ia. 590.
Holden v. S. Shrewsbury School District, 38 Vt. 529.
School Directors v. Birch, 95 Ill. A. 499.
School District No. 18 of Kearney County v. Lewis Davies. 69 Kan. 162.
Armstrong v. Union School District No. 1, 28 Kan. 345.</sup> 

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authorities. Without leave from the directors, Miss H., a teacher in a rural school in Illinois, employed a substitute and absented herself from school. This was noon on Wednesday. On Thursday morning the principal requested her to return to her duty at once, but she refused to do so until after the vacation which was to begin on Friday at noon of that week.

During the forenoon of Friday she was notified by the directors unless she gave a sufficient explanation for leaving and substituting another, her position would be considered vacant. To this notice she at once replied in writing. saying that she did not consider her position vacant, that the principal had told her, on Friday, that her substitute was entirely satisfactory, and saying she would resume her position after vacation.

The directors met and discharged her before the vacation was over and notified her of the same. After vacation she reported for duty, but she was refused. Suit was brought to recover compensation for the remainder of the term. The court held that the cause for Miss H.'s dismissal was sufficient.21

Miss L., a teacher in Illinois, had difficulty with a girl and sent her home. Miss L. was instructed that she had exceeded her authority, and that she would have to readmit the girl until the board of education approved the expulsion. This she refused to do and was called before the board. She again insisted she would not readmit the girl until the latter made a public apology. The board then discharged Miss L. The court sustained the action of the board on the grounds of insubordination.22

The refusal of a teacher to be vaccinated if required by law is an instance of insubordination sufficient for dismissal. Mr. L., a teacher in a Philadelphia high school was dismissed for this reason. Suit was brought to recover compensation, but the court sustained the board of education on the grounds that the board was given such right by the legislature, and that if students could be expelled for refusal to be vaccinated23 teachers could be discharged.24

Immorality. Even alleged immorality is sufficient cause for annulment of a teacher's contract, and it does not have to be in connection with the schoolwork. Mr. V. was employed to teach school in a rural district in Illinois. Before the opening of school term the directors learned of some serious charges of immorality against him. The directors immediately annulled their contract with him. Suit was brought with the contention that the charges were untrue. The court held it was not necessary to prove any specific act of vice against a teacher, if such teacher were generally suspected of vicious conduct by the community. Such charges, even though unproved, invalidated his usefulness as a teacher in the community. For alleged immorality a teacher may be dismissed before his services begin, but not so for incompetency.25 A Massachusetts case upholds the same contention.20

Profanity in the presence of pupils is considered immorality and sufficient cause for dismissal. A superintendent in a Michigan town was charged with using vile language in the presence of his students. The charges were substantiated and he was dismissed by the board of education. He sued for his salary for the remainder of the year. The court sustained his dismissal, saying: "The school board, a deliberate body, in the exercise of a right, here reserved by contract, went to a hearing quasijudicial in character, and having grounds to sus-

tain its findings, found that the plaintiff had been guilty of gross immorality and dismissed him. Such finding and determination of the board are conclusive unless the board acted corruptly, in bad faith, or in clear abuse of its powers."27

Society at large upholds very strongly the position assumed by the courts in these cases and in others.28 Parents may rightly demand that their children be taught by teachers of exemplary conduct.

May a female teacher be dismissed on account of marriage? This question is always asked when a board of education announces that no married women are to be employed in the future. A board of education may refuse to employ a married woman, but it cannot discharge her for marriage unless so stipulated in the contract, providing such stipulation in a contract is not contrary to statute law.29 The weight of judicial opinion holds that marriage in itself does not constitute grounds for dismissal.

Participation in politics, if carried to the extent of unprofessional conduct, is sufficient cause for removal. Supt. C. C. Hughes of

<sup>27</sup>Finch v. Fractional School District, 225 Mich. 674. <sup>28</sup>McFellan v. Board of Education, 15 Mo. 362. State Normal School Board v. Cooper, 150 Pa.

State 78.

"Guilford School Th. v. Roberts, 28 Ind. App. 355.

People v. Board of Education, 144 N. Y. 587.

Jameson v. Board of Education, 74 W. Va. 389.

Sacramento, Calif., preferred charges against Mr. G., a high-school teacher, for urging in his classes the election of a particular candidate for public office. He was discharged by the board of education and the action was sustained in the courts.30 There is a distinct paucity of cases similar to this one, however.

In conclusion, the foregoing cover some important phases of the annulment of teachers' contracts. In this discussion the teacher's obligations to the board of education and the community are in the ascendency. There are obligations of the board of education to the teacher which the courts have stressed in numerous cases. These obligations pertain especially to freedom from prejudice and acting in good faith when annulling teachers' contracts. In a Pennsylvania case the court said: "A good character is a necessary part of the equipment of a teacher. Take this away, or blacken it, and the doors of professional employment are practically closed against him. Before this is done there should be, at least, a hearing at which the accused may show that the things alleged are not true, or if true, are susceptible of an explanation consistent with good morals and his own professional fidelity."31

<sup>30</sup>Goldsmith v. Board of Education, 63 Cal. App. 141.
 <sup>31</sup>Trustees of State Normal School v. Cooper, 150 Pa.
 St. 78.

# Burning Questions of the School Board

C. C. Hermann

A prominent engineer, in commenting on his heating plants, said: "About the only trouble we experience with our plants is furnace troubles." This engineer was in charge of a group of well-designed and efficiently operated plants. He knew the kind and grade of coal that produced the most steam per pound for his conditions, and he employed experienced firemen to stoke the coal and take care of the plants. Yet he was not free of troubles, and it is doubtful if any boiler-plant operator can say that furnace troubles are entirely eliminated. It would be delightful, indeed, if such were the case; if all furnace worries were over with.

Causes of Failure of Walls The furnace undergoes some severe operating conditions. It must possess sufficient strength to support, not only itself, but often the load of the boiler full of water and miscellaneous equipment mounted thereon. The temperatures under which the furnace is called upon to bear this burden are such as to reduce its mechanical strength. In addition to the outward load plus the internal or boiler load we have enormous internal stresses set up by the intense heat to which the furnace is subjected. These temperatures, in the combustion zone, range upward of 2,800 degrees F., tapering off to a stack temperature of about 800 degrees.

While these temperatures exist within the furnace, the doors are suddenly opened for the admission of fresh fuel, with the result that the high temperature walls are subjected to a coldblast action of the inrushing air. Fresh fuel is thrown into the furnace, resulting in erosive action between the fuel and the walls. Ash and clinker adhere to the walls and the latter are injured by the removal of this refuse. Many furnace walls are practically ruined by the slice bar in the hands of an unskilled fireman.

Then we have the deterioration of the furnace walls due to the chemical action between the fuel and the refractory. In some fuels this is almost negligible while with other kinds of coal the refractory is readily fluxed and the wall destroyed in a short time.

Expansion and contraction of the refractory constitutes another cause for rapid furnace deterioration. The ideal refractory will possess

little or no dimensional change when subject to temperature changes. This ideal refractory has not been discovered as yet; however, this expansion is not so bad in our present refractories. The problem that gives engineers the most worries is the variation in refractories. brick laid side by side often have different expansion and contraction coefficient. A wall laid up with brick having this characteristic of nonuniformity in expansion, will practically wreck itself in time. The walls "grow" as it were, brick seem to creep out of the wall, and the joints between the brick become wider. Due to this creeping of the brick, one upon the other, the wall becomes ragged; bricks protrude from the wall at various places. These projecting bricks form a ledge for clinker to attach to, and then they are broken off by the slice bar, resulting in the destruction of the wall.

The Elimination of Troubles

The foregoing are merely a few of the causes that help to destroy the furnace wall and particularily the refractory composing the combustion-chamber walls. With proper supervision in the laying of the wall and with proper selection of the refractory many of these troubles are eliminated.

The first point for consideration then is the selection of a suitable refractory for the given set of conditions. This selection will take into consideration the class of fuel to be burned in the furnace, for example, solid fuel or liquid fuel. If solid fuel a very broad selection exists. For example, for wood and the lower classes of fuels having a comparatively low flame temperature, a low grade of refractory can be used. However, with coal as the fuel the combustion temperature is quite high and the best grade of fire brick obtainable is none too good.

With oil fuel we have a slightly different condition to meet. For example, oil is injected into the furnace under high pressure and in some burners it is atomized with high-pressure Then we have impingement probair or steam. lems or trouble from the washing action of the flame on the refractory. Under such conditions we must turn to a high-grade refractory, such as carborundum, to take the place of the ordi-

(Concluded on Page 140)

School Directors v. Hudson, 88 Ill. 563.
 Leedy v. Board of Education, 160 Ill. A. 187.
 Duffield v. Williamsport School District, 162 Pa.

<sup>476.

24</sup> Lyndall v. High-School Committee, 19 Pa. Supr. Ct. 282. <sup>25</sup>Tingley v. Vaughn, 17 Illinois A. 347. <sup>26</sup>Freeman v. Bourne, 170 Mass. 289.

# A Concrete Method for a Local Financial and Building Survey

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Undoubtedly, every district and city superintendent has by this time an uncomfortable feeling which he interprets as meaning that he should attempt some sort of financial survey for his locality. The probabilities are that he will go on smoothing it over, forcing it down and trying to forget, only to lay himself liable to all the devils of the subconscious of which Freud and his exponents have warned us. Whether or not the superintendent becomes a human derelict as the result of his suppressions and consequent attempt to escape from reality his district is sure to suffer from the lack of being properly studied and comprehended.

When the average man with average perspicacity and intelligence desires to increase his property, he sits down to figure out his resources, probable income, necessary expenditures, and the ultimate cost of his purchases. He also takes into consideration the relative values of the desired purchases, at least subjectively and then attempts to draw up a plan of payment which he hopes to follow. Other men buy on impulse and figure it out later to the tune of perspiration. Many school systems have the same healthy program. I say healthy, for such a program keeps every one at work. They can not afford to become ill, they must pay the principal and interest on the old bonds, float another issue immediately and add the payments to those unfinished. It would be considerable relief to be able to foretell at about what time a new building is to be needed, to have put at least a part of the initial costs in a sinking fund and be prepared for future expenditures.

The survey, if properly conducted, will enable the administration to make just such plans; it gives a cross section of the past and present, and lays a basis for future estimates. The survey at least provokes thought and thought eliminates many evils. It is the purpose of this article to lay out a definite procedure for the superintendent who has not conducted a previous financial survey. If the sense of duty has persisted and the action been forestalled because of a lack of actual methods to pursue, the following program will enable any member of the administration to conduct a survey for his district.

Outline

The survey should give the following information:

I. A cross section of the school situation—the census, accommodations, receipts, disbursements.

II. Comparative data—between schools, with other districts.

III. An analysis of the ability and effort of the district—the tax rate and assessed valuation, building permits, bank clearance, income index, location, geography, and other criteria of ability. A study of the indebtedness present and past.

IV. Estimates of the future—future population of the district, future school population and enrollment, needed accommodations, future costs and future ability.

V. Conclusions.

Procedure

Go to the telephone office, and obtain a statement of the number of stations in the district or town, find out what per cent the stations are of the population. Get the same figures for as many years previous as possible. Often the company has the estimate at hand; if not, make the estimate from what data are available. Sometimes the water department or other sources have figures. The objective is to obtain an estimate of annual increase in population and, unless the figures are approximate, the value of the survey is weakened from the start. When an estimate is arrived at, check it against

the national census. The data should cover at least the preceding 25 years if the future estimate is to have real value.

When the data have been obtained for, let us say, from 1901 to 1927, a good method of checking is to subtract the 1901 figure from the 1927 figure and divide by 25, the number of years in the interim. This will give an approximate annual increase and by adding it each year to the previous figure, the numbers may be checked against the estimates received from other sources.

It is also good policy to go back ten years, multiply the average annual increase by ten, add the number to the 1917 figure, and see how it checks with the facts to date. A graph of this figure will aid in noting periods of slow growth,

There are many methods of estimating future population, but for our purposes the average method is probably the most available. The methods may be greatly refined; such criteria as rate of births, immigration and emigration, deaths, average number in families, and racial factors may be taken into consideration. Our hypothesis is that the average takes into consideration the extremes and all influences for the past 25 years. It is logical that conditions will remain very similar, barring catastrophes or sudden rushes, epidemics, and those acts of God which cannot be foreseen. It is assumed that the same influences will be brought to bear upon the future as the past. Therefore, when the average annual increase for the past 25 years has been ascertained, multiply the number by the number of years in the period of prediction and add to the present population. The figure obtained must then be tempered by all the economic, social, political, and geographical knowledge at hand. It is a rough estimate at best, but is a decided criterion. It is better to allow the estimate to be large than small, for it is far easier to reduce than it will be to increase the necessary expenditures.

B. The next step is to obtain the school-population figures from the school records for a similar number of years, also the enrollment.

C. Ascertain the relation which the school population bears to the total population for a period of 25 years. These percentages are useful. Ascertain likewise the relation of the enrollment to the school population over a period of years. The average per cents can then be obtained. These are good criteria for estimating what per cent school population will be of the total population ten years from date. If the per cent has averaged between 25 and 30 per cent for the past 25 years, unless there is some reason to believe the number of children to the family will increase or decrease rapidly in the next few years, one is justified in believing it will continue so. Enrollment should prove to be between 80 and 90 per cent. National averages are nearing 90 per cent. Naturally the desired figure is 100 per cent, but it depends upon the rigidity of the compulsory attendance law and the age at which the law is compulsory.

Note the number of schoolrooms in operation each year and the average annual increase, the number of pupils per room, for each will aid in the accuracy of this estimate.

TABLE I. Table Showing Population, Enrollment and Contemporary Figures from 1900 to 1926. Also the Prediction for 1935 and 1936.

Also the Fred	iterion r	01 1000			
		0 -		% Sch	
		% Sch.		En-	
		Pop.	School	roll.	No.
	Sch.	is of	En-	is of	Sch.
Popu-	Popu-	City	roll-	Sch.	Rms.
Year lation	lation	Pop.	ment	Pop.	
1900 3.200	1390	.43	1059	.76	
1905 5.400	1884	.35	1425	.75	
1910	2724	.25	2058	.76	
1915	3033	.29	2360	.78	73
1920	2930	.28	2655	.91	86
192111,593	3042	.26	2245	.73	88
192212,794	3180	.25	2671	.84	92
192314,242	3325	.23	2880	.87	96
192414,868	3554	.24	3178	.89	100
192516,886	4046	.24	3476	.86	110
192619,686	4420	.24	3500	.79	124
1900 Gain15,486	1120	.24	5500	. 1 67	
		.28		.81	7
1900 Av. Gain. 619	COOF		5041	.81	187
193524,876	6965	.28	5641	.01	101
1921 Gain 7,093					
Av. Gain. 1,418				04	041
193532,866	9202	.28	7453	.81	248
<sup>1</sup> The above table is	taken i	rom a	survey	in E	agene
Oregon. Two possible	le estim	ates a	re mad	e for	1935
obtained by using two	respec	tive pe	riods of	aver	age.

When the above data have been secured, they should be placed in a table similar to Table I in this article. The material might later be made into a large chart and hung in the office, accompanied by a graph. It makes an interesting display.

**Building Situation** 

It is an easy matter to obtain the enrollment per school, the number of teachers, the number of rooms, the number of pupils per room or per teacher, the seats in use, the age of the buildings, the insurance carried on each building, and the debt. If placed in a table like Table II, it becomes easily accessible.

Receipts

All receipts for school purposes may be divided into two sources, revenue and nonrevenue receipts. Revenue receipts are those obtained from:

- 1. Federal government.
- 2. State government.
- County government.
   Local taxation.
- 5. Interest.
- 6. Miscellaneous.

Nonrevenue receipts are those obtained from:

- 1. Sale of property.
- Sale of supplies.
   Bond issues.
- 4. Short-term loans.
- 5. Insurance.6. Miscellaneous sources.

It is advisable to first collect the data displayed in Table III. This material should be obtainable in the county superintendent's office. Often the records which have been subjected to the handling of various county superintendents are not continuous and data that may be obtained for one year are not obtainable for the next. However, the collection of the material and arrangement in a table will lend stability to the records in the future and make clear to future incumbents what type of data should be kept. Gross receipts and disbursements, total indebtedness, bonded indebtedness, assessed valuation, district tax levied, and district tax in mills, also the relation of tax received to valuation, allow a fairly comprehensive view of the financial situation for a number of years. It is also possible to make a rough future estimate as in the case of population. However, the levies of money are so arbitrary that the estimate is not as approximate as in the former case. Often district taxes are conditioned by law as to the amount of increase allowed in the levies. In

TABLE 11	. A Cros	s Section	of the Bu	ilding Situat	tion in 1924-25		
	Enroll-	No. Teachers	No. Rms.	Pupils per Teacher	Age of Building	Insurance	Debt on Building
High School	947	42	34	23	11 yrs.	\$80,500	\$98,0001
Junior High School		16	9	34	10 yrs.	25,000	
Geary		14	12	41	35 yrs.	27,000	
Lincoln		10	9	33	16 yrs.	22.000	
Patterson		81/4	8	38	25 yrs.	20,000	
Condon		916	9	33	16 yrs.	27,000	20,000
Washington	256	614	6	41	10 yrs.	10,000	

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TABLE III. Table Showing a Cross Section of the Financial Situation From 1900 to 1926 Where Figures Were Available. Also the Prediction for 1935-1936

	Ave	Bonded	Total	OF 1950-1950	Dist.	Dist.	% Rec.
	Disburse	Indebt-	Indebt-	Property	Tax	Tax	Tax is
Year Receipts	ments	edness-	edness	Value	Levy	Mills	of Val.
1900 \$ 14,875	\$ 14.451			*******			
1901 15.187	14.893		******	********			
1902 51.975	46,815		* * * * * * *				
1903 66,099	30,873		* * * * * *	*******	*****		
1904 56,907	47,035						
1905 37,112	28,476		******	********			
1906 35,839	27,724						
1907 36,459	26,402		**** **				
1908 55,144	41,045			********			
1909 66,926	62,785		* * * * * * *		*****		
1910 139,290	123,509		* * * * * *	*******		***	
1911 92,042	13,049						
1912 81,135	76,587	\$91,300	\$300,000				
1913 100,411	83,345	92,100	301,000				
1914 138,009	125,518	110,500	322,000	*******	*****	* * *	
1915 223,473	189,916	215,400	339.281	*******			
1916 171,921	142,262	209,400	299,281		*****		
1917 133,064	131,771	209,750	214,750		*****		
1918 120,152	116,610	206,250	211,750				
1919 127,371	126,219	205,250	209,750	\$8,759,134	\$98,009	8.0	.0087
1920 163,468	163,468	204,750	224,750	8,693,118	115,915	11.3	.0098
1921 222,824	220,518	204,750	236,250	8,410,381	115,915	13.8	.0125
1922 173,617	207,038	224,500	248,212	8,410,381	124,266	14.6	.0115
1923 218,241	213,227	181,500	204,731	8,830,045	132,725	15.1	.0145
1924 272,129	251,943	169,000	236,860	9,309,823	140,000	15.1	.0125
1925 585,604	510,779	394,000	470,883	9,848,804	158,566	16.1	.0151
1926				10,364,140			
1935	\$713,705	\$427.554	\$602,233	\$13,427,719	\$258.815	18.	.0239

this case the actual amounts receivable at a future time can be more accurately figured than by the method of averages. The greatest value of this table is to ascertain the actual trends in the past. Perhaps the most reliable method of estimating future costs is to find the average per-pupil cost for a number of years previous, determine the annual increase per student for ten years ahead and multiply by the estimated enrolment for that period.

A more satisfactory analysis of receipts, when the data are obtainable, is displayed in Table IV. Here the sources are separated and the per cent which each source contributes is given. A graph of the proportions will make the data quickly comprehensible.

#### Comparison

It is now necessary to compare the school expenditures with those of the city, to examine the ability of the district. If the district and city boundaries are coterminous the task is com-

#### Disbursements

So far little has been said about disbursements, but it is now time to consider their dis-

			TABI			Portla	nd	S	tat
Bank cle Net wor Loans as Savings	th of nd dis	banks counts	increa	sed 9 sed 1 sed 4	$1.4\% \\ 8.6\% \\ 0.2\%$	23.79 14.79 12.29 50.99	10 10	8	80
TABLE	VII.		DING				CI		

Bu	siness	houses	and	remo	deling		\$ 511,670.00
Re	sidence	s only.					1,373,505.00
	Total						\$2,219,175.00
Ra	nge for	r reside	ences			.\$200.00 t	o \$10,000.00
Av	erage .						\$6,514.00
]	Data co	ollected	by 1	F. E.	Folts,	Professor	, School of
Bu	siness	Admini	strat	ion, U	niversit	y of Oreg	zon.

position. Mere gross expenditures means very little. Supposing the superintendent has found that a saving must be made but that he is at a loss as to where to make his curtailment. An analysis of disbursements will aid materially. It is desired to know where the money is being C. Transportation of pupils.

D. Pensions

E. Equipment. IV. Maintenance and operation of plant.
A. Janitors' salaries.

B. Janitors' supplies. Repairs to buildings and equipment.

Fuel, lights, power, water, gas, and laundry.

E. Insurance. Auxiliary. V.

A. Library. 1. Salaries.

2. Supplies.

3. Equipment. B. Health.

1. Equipment. 2. Supplies.

VI. Accessory enterprises, such as

A. Bands, orchestras, glee clubs. Part-time schools.

Night school.

D. Lunchroom.

VII. Capital.

A. The annual depreciation cost of plant and equipment.

The interest cost of capital tied up in buildings and equipment. The ground rent of sites occupied for

school purposes. New buildings and sites.

E. Interest on bonds and accrued interest.

A large ruled pad may be used or several small sheets, one for each type of cost. Two people working together will insure accuracy, if one reads while the other notes the amounts. In some cases it will be necessary to revert to the original bills in order to get the proper classification data. If unit costs are desired and the material is available, the distribution given here will not be sufficient, but each school will necessitate a column for each subject and grade. If the reader has never attempted such work before, it is advisable to be content with the present classification. Future attempts will be made much simpler by the present process.

It is well to classify all costs items generally first and then to reclassify by schools, departments, subjects, etc., as desired.

A concrete illustration of the distribution process is here given.

Several entries appear as follows:

1.	Five-gallon can\$ 1.80	)
2.	Flags 8.50	0
3.	Pupils' desks 369.2-	Į
4.	Construction, office counters 60.00	)
5.	Light and gas for cafeteria 22.00	
6.	Stove 30.00	0
7.	Railroad fare for board chairman 9.00	0
]	em 1 would then be charged to janitor's supplies	8
un	er maintenance and operation.	

under maintenance and operation.

Item 2 would then be charged to supplies under instruction costs.

Item 3 would then be charged to equipment under instruction costs.

Item 4 can be handled two ways. It actually is a repair bill but there is no provision made for a separate repair bill under general control. It may be placed under miscellaneous with the notation "repairs" beside it, to be later prorated to the various schools with several other items or it may be simply charged to general business as an office expense. The decision depends upon the accuracy desired.

Item 5 would be charged to lunchroom under auxiliary.

iliary.

Item 6. If the stove is replacement the amount over and above the cost of the old stove should be charged to capital while exact replacement goes to maintenance and operation.

Item 7 would be charged to general business. A great many complications will arise in the process, but an application of analysis in the light of a definite objective, that of attributing each charge to the school and type of cost to which it rightly belongs will generally answer the question. Much will have to be prorated by per cent ascertained by determining what per cent the enrollment of the school is of the total enrollment.

Receipts from a lunchroom should not be forgotten when estimating costs.

#### Conclusions

When this work is done and the totals checked, the workers may sigh with relief. From here on it is a pleasure. There is no limit to the studies that may arise from the material now at hand. Comparisons may be made in any direction. The schools may be ranked by amounts, by per cent of total expended, by per-pupil costs, by individual costs.

If a school with 300 pupils is costing the district fifty cents per pupil more in general control than a school with 200 pupils, what is (Concluded on Page 133)

-				T	ABLE IV					
	Dist.	Co. Sch.	State	C. H. S.		Sale of Bonds and War-	Voc. Ed. Smith-	Out- standing	All Other	
Year	Tax	Tax	Sch. Tax	Funds	Fund	rants				Total
	\$ 96,835	\$26,706	\$5,373	\$10,961	\$15,306	\$ 11,000	\$1,835	\$36,212	\$1.686	\$173,617
1923	128,774	28,519	5,479	10,508	15,063		1,239	23,231	2,914	218,240
1924	117,121	27,697	5,752	18,040	15,674		1,674	67,859	4.822	272,129
1925	149,208	32,086	5,828	27,420	16,660	253,343	1,172	76,433	33,613	585,604
Per	Cent Each S	source is of	Total R	eceipts	.06	.00	.006	.24	.017	
1924	43	.10	.02	.07	.028	.43	.002	.13	.057	

paratively simple. The comparison of school taxes versus city, state, and county taxes is also valuable as an orientation process. The value lies in knowing just where the school stands in relation to other civic enterprises and whether the comparison augurs for further expansion. Knowledge is power, and when additional expenditures are planned, comparative figures will often win the fight. The building permits, bank clearances, and income are good indexes of the ability of the community.

The Chamber of Commerce, the bank that acts as a clearing house in the district and the city council can furnish you with these figures, not to forget the building permits. The following tables illustrate the collection in one instance.

TABLE V. BUDGET	FOR CITY, 19	25
Budget	Levy for	Credit
1925	1926	to Levy
Attorney's Office\$ 1,970.00	\$ 1,970.00	
Recorder's Office 3.980.00	3,410.75	
Treasurer's Office 2,925.00	1,549.74	
Engineer's Office 4,600.00	No Levy	\$3,090.55
Fire Department 21.110.00		
Police Department 12.090.00		
Street and Bridge 22,140.00		*******
Parks. General 2.500.00		*******
Parks. Auto 3,985.30		2,000,00
Building Inspector 1,990.20		4,200.00
Milk Inspector 600.00		
City Hall 2,102.78		
Aviation Field		
City Pound		
Sewer Main 2,900.00	2,900.00	
Employment Agency		
Elections 250.00		
Library 5,200.00		
Emergency 2,934.00		
Int. on Bonds 31,445.00		
Int on Sink Fund 36.725.00		

spent, which school is costing most, which department and what type of service is most ex-

The following classification taken from Pittenger's "Introduction to School Finance" with a few minor changes to fit the situation is very satisfactory. It is advisable to read the book mentioned above before attempting the distribution. Peel's "Simplified School Accounting," is also useful in this respect and should be scrutinized if at hand. Both books will lend comprehensiveness to the task which is at best a tedious work. It is best to practice a few classifications until the distribution is fixed in mind.

#### CLASSIFICATION OF COSTS

- I. General Control.
  - A. Business control.
    - 1. All charges to the Board of Education, such as employees of the boards, supplies used by the board, traveling expenses of board members, expenses of elections, and office expenses, census.
  - B. Educational control.
    - Salary of superintendent, principal, clerks, and other employees. Office and other supplies used.
    - 3. Telephone.
- II. Supervision.
  - A. Proportion of principal's salary.
  - Salaries of special supervisors.
  - C. Salaries of teachers engaged in supervision.
- III. Instruction.
  - A. Salaries of teachers.
  - B. Instructional supplies.

# Factors in Fixing Maximum Teachers' Salaries

Teachers' salary schedules are frequently adopted by boards of education as the result of clamor for increases, and the determining considerations in fixing maximum and minimum amounts are usually two or three arguments which appeal to local sentiment. In most cases, a different result would be arrived at if the entire situation were carefully studied and all contributing facts, conditions, and principles were presented, discussed, and acted upon by the board.

Salary schedules arrived at without due study are invariably unsatisfactory; if they are too generous in one way or another, the community finds itself burdened with a tax load; if they are too niggardly, the teachers will suffer injustice and, inevitably, the schools will suffer a reduction in morale and efficiency. In either event the school board and its executive officer, the superintendent, are not discharging an important duty of their

In the following paragraphs is presented a study of a teachers' salary schedule which deserves to be read by school officials because it suggests typical factors which affect teachers' salaries in smaller communities, and because it involves a method of study that is possible in any small city. The report is reproduced with omissions of matters of purely local moment. The author is Mr. W. C. McGinnis, superintendent of schools at Revere, Mass. In the course of his statement, Mr. McGinnis explains the local situation. He writes:

Some time ago, the salary committee of the Revere, Massachusetts, Teachers' Club, composed of equal representation from the elementary, junior-high-school, and senior-high-school groups, presented to the school committee a report and recommendations in regard to increasing salary maximums. At a meeting of the school committee held on June 28, 1927, the committee voted to refer the report to the superintendent of schools for investigation, report, and recommendations.

The report of the teachers' committee respectfully requested that the following salaries be established in the Revere schools:

Increase of maximum salaries of elementary teachers to \$1,800.

Increase of maximum salaries of junior-high-school teachers to \$2,000.

Increase of maximum salaries of senior-high-school teachers to \$2,300.

The committee requested that the above maximums be attained at the rate of \$100 per annum, and that the increases be effective beginning January 1, 1928, to those receiving maximum pay during 1926-27. It was further requested that maximum salaries for all other teachers be increased at the rate of \$100 per annum, beginning September 1, 1928.

The salary schedule suggested represents the sentiment of the Revere Teachers' Club, and would place the maximums of the Revere school system at the median for the group of cities adjacent to Boston.

The committee prepared the following three tabulations of salaries in Massachusetts cities:

The problem before the Revere school committee may be reduced to five questions: Should the committee increase the present maximum salaries of classroom teachers? If so, how much and by what plan? By the plan recommended by the Teachers' Club Salary Committee? By the plan, suggested in the school-committee meeting, of higher maximums for men than for women? Or, shall some other plan be adopted?

Because of the source of this problem and the conflicting interests involved in it, a solution of it cannot be attained by the use of one method of study. Results of the teachers'-club questionary and other data also will be used. The analytical method and, to a limited extent, the statistical method of study will be used.

Equal Pay in Business and in Education
"Equal pay for equal work" is a slogan of
the women teachers in the public schools of
America, It is also the slogan of the American
women in business. One part of this study will

		TABLE	I				
	Maximum	Salaries in 9					
		Elem.		gh Schools		nior High S	chools
	CITY	Schools	Men	Women	Men	Women	50% Diff.
	Lynn				\$3356	\$2000	\$2678
	Cambridge	. 1800	\$2250	\$1900	2500	2000	2250
1	*Somerville		2350	1900	2550	1900	2225
	Malden			1850	2700	2000	2550
	Quincy	. 2200	2600	2200	3150	2200	2675
	Chelsea		2400	1800	2300	1900	2100
	Everett	. 1850	2600	2000	2700	.2300	2500
	Medford		2400	1900	2800	1850	2325
	Waltham	. 1730	1900	1750	2000	1750	1875
	Median		\$2375	\$1850	\$2700	\$1900	\$2325
	DEVEDE	21000	21700	91700	21000	91000	84000

*Somerville has supermaximums beyond th						
	TABLE					
Maximum Salaries	in 12 Sub	urban Cit	ies and Tow	ns		
	Elem.	Junior 1	High Schools	Ser	nior High S	chools
TOWN OR CITY	Schools	Men	Women	Men	Women	50% Diff.
Boston	\$2400	\$3600	\$2400	\$3600	\$2976	\$3288
Cambridge	1900			3356	2000	2678
Somerville	1850	2350	1900	2550	1900	2225
Brookline	2000			3100	2700	2900
Watertown	1650		1800	2900	1900	2400
Malden	1750		1850	2700	2000	2350
Medford	1700	2400	1900	2800	1850	2325
Lynn	1800	2250	1900	2500	2000	2250
Everett	1850	2600	2000	2700	2300	2500
Chelsea	1700	2400	1800	2300	1900	2100
Winthrop	1550	2400	1550	2600	1750	2175
Saugus	1350	2000	1500	4444	1550	
			2000		1000	****
*Median	\$1740	\$2400	\$1800	\$2800	\$1875	\$2400

\*Excluding Boston.

REVERE .....

Schools   Men   Women   Men   Work   Schools   Men   Women   Men   Work   Schools   School   School			
Elem.			
Schools   Men   Women   Men   Work   Work   \$2304   \$3600   \$2400   \$3600   \$229   Worcester   2110   3325   2300   3250   27   Springfield   2125   2400   2200   3200   30   30   New Bedford   1950     2725   275   2760   2040   2900   28   Lowell   1850   2760   2450   1900   2700   24   Lowell   1850   2250   1900   2500   20   20   20   20   20   20	1011		
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REVERE \$1600 \$1700 \$1700 \$1900 \$19			

consist of an open-minded attempt to establish the basic facts leading the women to their con-

\*Excluding Boston.

clusion in the adoption of this slogan.

Most slogans consist of smart, catchy phrases which, after being subjected to a consideration of what they mean in the light of facts, are not so good as they sound. They appeal to the emotions rather than to the intellect, but not infrequently, because of that very fact, they result in great social and political good. Sometimes the results are the opposite.

The question of equal pay for women and men teachers involves several related questions, and the same statement is true as applied to the problem of salaries of women and men in the business world.

Women contend that for doing a certain piece of work equally well there is no possible valid argument for discriminating on the basis of sex, in the amount of financial compensation. In certain lines of work, as in some factories, where the pay is for piece work, there is no discrimination on the basis of sex.

Revere is the only city in the Boston suburban district which does not have a higher maximum

salary for men teachers than for women teachers. In fact, according to the report of the salary committee of the Revere teachers, Revere is the only city in the metropolitan district (and one of only three in Massachusetts) which has not adopted the principle of higher maximum salaries for men teachers than for women teachers.

At a recent meeting of the school committee a member of the committee called attention to the fact that higher maximums for men represent the established custom in the commonwealth, and raised the question, "Is Revere's policy right, and is the common policy adopted by all other Massachusetts cities wrong?"

It is possible that Revere's policy is right. Examples of established policy or custom of equal pay for teachers regardless of sex can be cited, which are as authentic and as important as precedents as those already cited on the other side of this difficult problem. The lists of examples which could be cited in support of the policy of higher maximums for men, or in support of equal maximums for men teachers and for women teachers are long lists. For instance,

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of the largest fifteen cities in the United States, Boston is the only one which has higher maximum salaries for men than for women teachers.

Reasons for Higher Pay for Men

It is reasonable, then, to conclude that evidence of established policy or custom in the matter of higher maximums or equal maximums, for the purpose of arriving at a conclusion regarding the question of what Revere should do, would be useless. The only help we can obtain from a consideration of these established and conflicting policies is that which we may derive from a study of why they were established.

It is a fact that Massachusetts cities generally have adopted the custom of higher maximum salaries for men teachers. Why? Several reasons as possible answers suggest themselves:

1. Deliberate discrimination against women.

Prejudice and custom.

Economic or financial reasons.

4. Supply and demand.

Value of service.

Length of service.

Deliberate discrimination. The majority of school-committee members is of men, and they are business men or professional men. It is a well-known fact that civilized men do not deliberately discriminate against women. So well established and so long established is the custom of civilized men not to discriminate against women, that it is recognized as a law of sociology. The observance of this social law was brought forcibly to the attention of the world in the Titanic disaster. Deliberate discrimination, therefore, is eliminated.

2. Prejudice and custom are not so easily disposed of as reasons. The history of New England education shows that until comparatively recent times the school teacher was a school master. In the eighties and nineties the school master was a prospective lawyer, doctor, or minister, who taught school as a side issue while he was preparing for his profession. In those days women were practically unknown as wage earners, with the notable exception of the woman servant, of which the New England "hired girl," the hotel waitress, and the shop girl were most numerous. It was natural and inevitable that business men and professional men should regard these girls and women as their social inferiors. Later, when women took up teaching as a profession and business pursuits as a career, this feeling of social superiority persisted, partly as social prejudice and partly as biological prejudice. One need not search even now to find men who believe that women's inborn mental ability is inferior to that of men's, in spite of scientific evidence to the

It is significant that the policy of higher maximums for men is more strongly entrenched in New England than in any other part of America. It is almost universal in New England. Fourteen of the fifteen large cities of the country have equal maximums, and New England's largest city is alone in maintaining the opposite policy. Prejudice, established custom, and precedent are recognized by the sociologist as barriers to social progress. Young countries and the newer parts of a country are freer from these barriers and, consequently, make greater progress, because they make more experiments out of which social, political, and economic progress comes. The middle west and far west of America demonstrate the truth of this statement.

Prejudice and custom, or what is sometimes called New England conservatism, is, in part at least, responsible for the unequal maximum salary policy of Massachusetts and of New England as a whole.

Economic Reasons for Unequal Pay

3 and 4. Economic or financial considerations had their effect on the settling of the policy of teachers' pay, although in the beginning it was the beginning salary rather than the maximum salary that was affected. Supply and demand entered into the situation. In a democracy there is a continual advance of groups and families along the road of better social conditions. Sociologists sometimes think of this movement as a gradual but slow movement, which is true of a nation or of a race. Within the family and community groups the movement is more rapid, although the movement is sometimes backward. The forceful but inelegant American expression, "three generations from shirt-sleeves to shirtsleeves," is an illustration of this idea. With the rapid spread of educational opportunities in New England, partly through the influence of the work of Horace Mann during the middle of the nineteenth century and through legislative enactments, the door to the teaching profession was partly opened to women. The development of state normal schools furthered the movement.

The result of the spread of educational opportunity was peculiarly democratic and social in some respects. From the community groups which had been and still were furnishing the female servants, came large numbers of recruits for the ranks of the teachers. It was not at all unusual for individual families to furnish recruits for the ranks of the servants and also for the ranks of the teachers. In many families the older sisters were hired girls and shop girls with limited education and small pay, but their younger sisters, through family financial assistance, were educated and trained for the work of teaching. This same process of democratic change continues today and is an important factor in social progress. It is in part a realization of the democratic ideal of equality of opportunity.

But the fact that many of the recruits to the teaching ranks came from groups in which the wage of women was low was a deciding factor in establishing low wages for women teachers. There were two main contributing causes for this result. The first was the already established custom of paying women less than was paid men for the simple reason that they couldn't do as much work as men could, the popular conception of work being manual labor such as that performed by the hired girl. The second contributing cause was the willingness of the young women teacher recruits to accept rates of pay that were only slightly in advance of the wages of the working girls from their own communities and from their own families. The five-day school week and the comparatively short school day were elements in the situation that tended to satisfy the women teachers with a low salary and also to cause school boards to

Women were not as physically strong as men. Physical strength in many schools was a prerequisite of the ability of the teacher to stay on the job. That there was inequality of pay from the time women entered the teaching ranks in considerable numbers in New England is shown by the school-department records. Even in many of the large towns and cities teachers were hired by the term, and it is a common thing to find records of women teachers for the fall and spring terms and men teachers for the winter term, the men receiving from fifty to one hundred per cent more weekly or monthly pay than the women. The obvious reasons, here, for paying the women less than the men were the causes mentioned, combined with the economic and financial factors. Women could be hired as teachers for less pay than men. To hire women at the lower wage kept the tax

place a relatively low estimate on the financial

value of the services of women teachers.

rate down. The inference, therefore, that economic and financial considerations were factors in establishing different rates of pay for men and women teachers is correct.

Intrinsic Value of Women's Service

5. Value of service. That school committees placed a higher estimate on the value of the service of men teachers is shown by the reference already made to the custom of hiring men teachers for the winter term at a higher salary. Women were available and could be hired for less money for winter as well as for fall and spring service. Schools were larger in the winter. More big boys were in attendance. It is clear that the deciding factor here was the higher estimated or assumed value of the service of the men teachers.

Of the five suggestions that have now been considered as possible answers to the question of why Massachusetts cities generally have adopted higher salaries for men teachers, it has been proved that reasons two, three, four, and five are all parts of the correct answer, and that deliberate discrimination is not a part of the

6. Length of service. The common law is a body of long established and generally accepted customs. Much of our statute law is composed of common law made into statute law in toto by legislative enactment. In many instances the common law has not been changed at all through legislative enactment. It simply has been given more authority than it otherwise would have. In other cases, because of new or changed conditions, the common law was changed or a new law was enacted to replace the common law.

The school board is a legislative body having authority to establish rules (laws) to govern its procedure and to regulate the school department. It may make any rules (laws) which do not conflict with the laws of the state.

The custom of higher salaries for men teachers than for women teachers in Massachusetts has been a common custom for so long and has been so generally accepted that before definite rules were adopted by school committees on the subject of maximum salaries, the custom had the effect of common law. The acts of Massachusetts school committees in voting to establish higher maximum salaries for men teachers than for women teachers were legislative acts similar to the acts of state legislatures whereby common law was made statute law. No new principles affecting the relative salaries of men teachers and women teachers was involved in formulating maximums. The only new principle involved was a principle of school administration. The establishing of definite maximums made it possible for school administrators to prepare budgets more accurately and more scientifically, and furnished the teachers with definite information as to what their salaries would be from year to year.

The considerations already given in this study show conclusively that higher pay for men teachers than for women teachers was a custom which was begun, continued, and established long before maximum salaries were established. It is obvious that length of service had no bearing on the beginning of the policy of a difference in the pay of men and women teachers, nor with its continuance. The mere continuance of the difference in pay established it as a custom. Length of service had nothing to do with the school-committee legislative establishment of maximums, because the customary difference in favor of the men was simply carried over by legislative act.

We find, then, that the answer to the question of why Massachusetts cities have adopted the custom of higher maximum salaries for men teachers is composed of the following: (a)

(Continued on Page 140)

### The Janitorial Training Methods for the St. Louis Schools

Edwin S. Hallett, Chief Engineer, St. Louis Board of Education

That the importance of reproducing wholesome air conditions in the congested city is striking home at the consciousness of the American people as never before is evidenced by the frequent news on the subject in the press. That the problem is only half-solved by the installation of ventilating apparatus is well understood by school authorities and hygienists. The present paper is written to help the school officers, in manning their buildings, to secure the results contemplated in the design of heating and ventilating apparatus.

Personnel Organization

The care of a school building requires two distinct kinds of service, whether they be rendered by one or two groups of employees. general care of the building and grounds including sweeping, scrubbing, and window washing, and the supervision of pupils in various places out of the classrooms, is one group of the custodian's duties. The engineering duties, which include firing, boiler management, and minor repairs, engine, fan and air-washer operation and maintenance, constitute the second group of duties. A grade school of 25 or 30 rooms, seating 1,200 to 1,400 pupils requires the constant attention of one man who passes coal, fires the boiler, removes ashes, operates the fan and engine and air washer, and supervises the heat regulation from 7 A.M. to 3:30 P.M. on cold days. Such a school may have some cleaning done during the day while school is in ses-

The whole St. Louis school organization is unique and extremely simple and direct, and the care of school buildings is one of the most satisfactory and attractive features of the school charter. The commissioner of school buildings alone is responsible to the board of education for the care and operation of the buildings. The custodian force is placed under a superintendent of custodians who devotes all his time to the supervision of these men and women. All employees are immediately and wholly responsible to the commissioner of school buildings through the superintendent of custodians. No contract work is ever done. No interference in any manner from outside influences, political or otherwise, is permitted. No man is discharged except for cause and that strictly in matters concerning his work in the school. In recent years scarcely any custodians have been discharged.

The St. Louis Method of Appointment

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The St. Louis charter provides for & civilservice examination by the commission, made up of the commissioner of school buildings, a principal of a grade school, and an assistant superintendent of schools. A maximum age of 40 years is required and a physical examination is made by the board's physician. An educational test is required, which is quite elementary, but great care is exercised in the personal interview to secure persons of good moral character and intelligence. Those who have followed one of the trades as mechanics are preferred. It is not attempted to secure persons qualified at first to perform the custodian duties. That has been found to be impossible. There is no place outside the St. Louis schools where they could prepare for this service, so the department has inaugurated an educational system especially for the purpose of preparing its own employees for these duties. The eligible list secured by the civil-service examination is used for the appointment of "second men" who must work for a period of years under the instruction and leadership of the "head man." It takes about five years, as an average, to qualify for promotion to head man. All appointments of

new men are subject to dismissal within six months, if in the discretion of the superintendent the second men will not make satisfactory head men in time. This is a probationary appointment. It will be apparent that this method secures the highest possible efficiency and will develop an organization so specialized that ordinary labor cannot be used.

**Educational Method** 

The men are appointed for their superior. natural qualications for this work, and the teaching process begins with the assignment to a school. New men are placed in school buildings with head men who have shown most aptitude at teaching their work to assistants. Many good head custodians are unable to direct assistants so as to get the best results. Great stress is laid upon the point of training assistants, and all custodians recognize the teaching responsibility as a most important duty. As a rule a new man will serve under two or three of the best head men before the promotion examination is given. A favorable report is always required of a junior custodian before he comes up for the engineer's examination. Such proficiency is required that the man could take charge of any building in St. Louis and for that matter any building in any city. The instruction and experience are broad enough for that. The men are occasionally shifted to other buildings, to become familiar with different types of heating apparatus, and new furniture and floors. Where a man discovers an improved method of cleaning or window washing. or paint or marble renovation, a demonstration class is formed. A group of a dozen or two of the best men are selected to prove out the method, and from that satisfactory trial the method becomes a standard practice in the system. Great pride is taken in the care of fine oak finish in the schools, to avoid the use of harsh soaps or chemicals that kill the oil and elasticity of the paint and varnish. The trim in some schools has stood twenty years without refinishing and looks like new.

The Custodian School

More than eight years ago the writer originated the first class of instruction for the custodians, for the purpose of teaching the operation of the heating and ventilating systems of the schools. At the beginning only the engineering department furnished the teachers, and for two or three years the effort was mostly confined to the operation and maintenance of the plants.

When Mr. P. A. Brante was appointed superintendent of custodians, he broadened the scope of the teaching by personally conducting the instruction in all the matters that pertained to the perfect condition of the school buildings and grounds. Much of the official communication of the office with the men is given orally, with the necessary amplification and discussion among the men themselves. In fact many of the best methods in use were discovered by the men who were making experiments and trying out new materials. Every new thing that promises to be an improvement is tried out on a small scale by some suitable man and the results are re-



ported. Where several are working on the same experimental problem, a careful check is made on the several reports, and the decision is based upon the prospect of all the men making a success of the new method.

Lessons are given at every session on some of the theoretical phases of the science of heating and ventilation. The work of the Pittsburgh Laboratory is kept before the custodians in digested form and its significance to the schools is explained.

**Smoke Prevention** 

Timely topics of interest to schools are presented. The effects of our economics are brought back to the men and suggestions for improving them are laid out. No school is permitted to make objectionable snoke. The school plants all use the cheapest soft coal which makes dense smoke in ordinary furnaces, but the older schools have down-draft furnaces and burn lump coal. It requires firing skill to fire these furnaces without smoke, and great care is exercised to prevent smoke. This is the school contribution to the smoke abatement campaign now active in St. Louis. The custodians, in fact, are circulating the information of the city committee in the furtherance of the movement.

The newer schools have stokers specially designed for the low grade screenings which contain the highest number of heat units per dollar that can be found in this market. This example is of great value to the commercial coal user.

The most difficult lesson for the new man to learn is the control of the velocity and temperature of the air in ventilation. All the older schools have individual room ducts fed from plenum chambers. The method of mixing tempered air and warm air so as to have a mixture of just the right temperature to hold the rooms at 68 degrees, requires intelligent supervision so that the range of damper control shall be secured by the heating coils. The use of waste heat from the smoke stack requires attention in mild weather, to avoid having tempered air too high in warmth. These are matters of common sense, but it requires much teaching to secure perfect performance. The teaching of such details must be mixed with the theory. Our experience shows that, in teaching mature minds, much more repetition and amplification is required than is necessary with children.

**Good Fellowship** 

Another object in conducting a systematic course of instruction is the cultivation of a fellow feeling and comradeship among the men and a close relation with the superior officers of the board. Much attention is given to the improvement of the working conditions of the men and women. They are counseled how to get more pleasure out of their work. They are given more free time to themselves and they are advised to rely more upon their judgment as to the full performance of their duty. In coldweather the men must be the judges as to the time of starting fires. They must know without instruction when it is necessary to fire upon Sunday to prevent freezing up the school plant. They must know exactly their legal responsibilities as custodian of the property. They must know how to guard against burglary and vandalism and other property damage. They themselves must learn to be diplomatic in dealing with the principal and teachers, as well as with the community. The custodian can, and many have become, an indispensable factor in the school activities. Remarks are often heard in St. Louis concerning the high class of men in charge of the school buildings. This is very important. It helps in the creation of a city-wide



# School Board Journal

WM. GEO. BRUCE WM. C. BRUCE

EDITORS

#### EDITORIAL

# THE NEW MEMBER OF THE BOARD OF EDUCATION AND HIS FIRST PROBLEM

The citizen that finds himself elevated to a seat in the local board of education is usually filled with an ambition to render the highest measure of service. Those who enter upon their duties with an open mind, ready and willing to familiarize themselves with the school system and its problems, are usually on the right road to useful service. The man who takes his seat in a board of education room with prejudices and preconceived notions is bound to get himself into trouble sooner or later.

It is this type of school-board member that breeds the aggressive reformer and watchdog of the treasury. Things have been terribly wrong until he came upon the scene, and it devolves upon him to save the school system from dire calamity. He is sure to throw a monkey wrench into the machinery and get his name into the newspapers. That is enough to fire his pride and combativeness. At least he cannot be ignored. Whether right or wrong he commands attention. To be in the limelight, though wrong, is better than to be in obscurity, though right.

Such members usually come to grief before they have served very long, and usually settle down to real business before the end of their term. The novice who is circumspect and cautious learns before he leaps. He becomes sure of his ground before he ventures upon corrective measures. Sometimes the things that appear wrong to the new member are not so wrong after all.

Some years ago the writer knew a citizen who secured a school-beard membership for the sole purpose of getting even with the superintendent. The latter had reprimanded his son at school or rendered himself guilty of some similar act. Besides, he had formed definite conclusions as to the methods employed by the chief executive of the school system. That school official must have his wings clipped.

An old and experienced member counseled the new member to hold his tongue for the first year of his term. "Just familiarize yourself with the school system, ascertain what the superintendent is doing, keep your eyes and ears wide open, and do not strike until you are sure of what you are going to hit." Oddly enough the advice was heeded and at the end of the year the junior member found that things were not as wrong as he had imagined them to be. The superintendent was, after all, a conscientious, level-headed and capable man.

There is also the citizen who comes into the board of education with a social, civic, or economic prestige which distinguishes him from his fellow members. Such men are in danger of exercising an inflated confidence in their judgment and yet know very little about school-administrative problems.

Recently in one of the southwestern cities a

young man was elected to board-of-education membership by an overwhelming vote. The prestige which attended his name prompted him to believe that the public expected him right off the bat to do the big thing. So he jumped with both feet on the superintendent. That individual had dared to formulate regulations for the selection and appointment of teachers. He was sure that the superintendent could not pass an examination in the very studies he himself had prescribed. That was enough to warrant a sensational attack.

And yet how differently it all came out. The issue was teaching ability in the classroom secured through executive ability in the superintendent's office. A seasoned and sensible board of education saw the point, and gave the regulatory measure its hearty approval. The superintendent had demonstrated the ability for which he was hired. It mattered little whether he himself could pass the examination or not. It was sufficient to know that he was an efficient executive, and the chances were that he could pass the examination himself, if compelled to do so. Thus, the new member, whose vote on election day had rolled up into remarkable figures, suffered an ignominous eclipse.

The American school system was not wrought in a day. It is the achievement of many years and the accumulated work of many minds. No man, therefore, can inaugurate radical reforms. On the other hand, improvement is constantly in order. No school system is perfect, and the effort to strengthen its service must not be relaxed.

The man or woman that is honored with a membership on a board of education at the beginning of his or her term is usually not equipped with a full knowledge of school-administrative procedure, or the ins and outs of the school system. It takes time to become familiar with school-board duties and responsibilities and no judicious member will attempt innovations, departures, and projects before he has thoroughly familiarized himself with his office.

#### SALARIES FOR STATE AND CITY SUPER-INTENDENTS OF SCHOOLS

The salaries paid at this time to state superintendents of public instruction throughout the United States stand out in strong contrast to the salaries paid to superintendents of the larger cities, in that the former are miserably low. The inference is that the position of the state superintendent of public instruction is, from a purely educational point of view, on a par with that of a third-rate city.

Recent school-administrative history records that Charles F. Miller, state superintendent of Indiana, resigned his \$5,000 position to accept the city superintendency at Indianapolis at \$9,000, and that John H. Logan, state commissioner of education of New Jersey, relinquished a salary of \$5,000 to accept the superintendency at Newark, with a salary of \$15,000. The question which arises here is whether the position of superintendent of a school unit of one-half million people is more important than that of two million people, or whether the duties of a city superintendent are more exacting than are those of a state superintendent.

Again, it may be claimed that the relations of the state superintendent with the several school units of the state are so stabilized by law that individual judgment and educational leadership are of less importance. All of this would argue that any schoolmaster of mediocre ability could administer a state school system, and that he merely interprets the school laws of the state, distributes the state school funds, and settles the disputes which may arise in the rural-school districts.

This claim cannot be entirely correct. If the office of state superintendent is to render the highest measure of service of which it is capable, it follows too, that its executive must be an educational leader who must stimulate the professional workers who come within his jurisdiction. No man should know the educational needs of the state as a whole more thoroughly than the state superintendent. He is the connecting link between the school interests and the lawmaking body, and must be able not only to locate the weak spots, but be equally able to champion needed reforms and changes. With changing conditions in administrative and professional methods, new laws and new provisions must be made.

Thus, the argument that the office of the state superintendent is purely perfunctory, and merely a sort of long-distance regulator of misinterpreted rules and laws, is not entirely sound. The rural-school problem is as involved as is the city-school problem, and requires the most astute leadership and direction. It cannot, therefore, be said that the several school units are sufficiently under local control to require no particular attention through a general unifying and directive force. Leadership can and must be exerted.

The salary difference between state and city must be assigned to the viewpoints of state legislative bodies and local boards of education. The latter responds more readily to immediate exigencies and needs, while the former is only annually or biennially assembled, is diverse and remote in constituency, and therefore less responsive to the situations that may arise. The one reflects urban progressiveness, while the other is controlled by rural conservatism.

The prestige which attends the office of state school superintendent or commissioner has prompted highly capable men to seek the same, but these have usually, after a term or two, sought more lucrative positions. On the other hand, there are states in which the high-class educator shuns the office of state school executive, as being devoid of either prestige or proper remuneration. His services are more readily appreciated in the urban units or city-school systems. The fact that the large cities offer two and three times the salary afforded by the states ought to prompt wideawake legislators to realize that high-class service cannot be retained unless it is adequately compensated.

The board of education, as exemplified in the American cities, both large and small, has come to the conclusion that capable professional talent has a fixed value and is essential and vital to the conduct of an efficient school system.

# A CELEBRATED CASE IN SCHOOL ADMINISTRATION

In the field of American school administration it is nothing new to find that a school superintendent has come into conflict with the local politicians. He usually encounters them on the board of education. The politician outside of the board is less inclined to cross swords with the educational expert of the community. He knows that the latter enjoys a prestige and influence which, as a rule, cannot be successfully attacked.

In the city of Chicago, however, the politician is more daring and will take a chance regardless of how a thoughtful constituency may react. Expediency is the order of the day. Ethics and reason! These words are unknown. Prejudice is the weapon employed. Votes count as nothing else does. Charges can readily be preferred during a political campaign. Time enough to prove them after the election has been won.

That was exactly the case in Chicago. When the mayoralty campaign was staged last spring it became a contest between Mayor William E. le

Dever and William Hale Thompson candidate for the mayoralty. It was during Mayor Dever's administration that William McAndrew was chosen superintendent of schools. What Dever had done must be undone by Thompson. The latter's campaign slogan was "Fire McAndrew! He is in league with King George of England. The textbooks in the schools prove that!"

Thompson was elected Mayor and somebody remembered that the preelection promises ought to be redeemed. But how? When the textbooks did not prove the charges against Mc-Andrew it was proposed to buy him off. Mc-Andrew is a stubbern Scotchman and would not sell. He proposed to stick to his job. Then it was discovered that he had aided the teacher-clerks in their fight against dismissal. That was a treasonable offense against the dignity of the board of education. Insubordination was charged and by a vote of six to five he was suspended from office. The case has gone to the courts where it now hangs.

The case is exceptional not only in that the contest has assumed an acute form, but also in that it affects the second largest city in the country and hence excites nation-wide concern. It is a battle royal, with political interests on one side and the educational interests on the other. The spectacle of a Mayor of a city of over three million population in combat with a schoolmaster over the control of a school system, is as unique as it is disturbing.

The outcome of a case of this kind can readily be conjectured. If the schoolmaster stands by his guns, he may win in the end. The chances are that he will be defeated. The cards are stacked against him and while in playing the game he may hold to honorable methods it is quite certain that the other side will not. Once the politicians have sworn "to get him," they will, by hook or crook, succeed in their purpose.

The Chicago case is deplorable, not only bese it seeks to inflict an injustice upon a sele schoolmaster, but because it reveals the bwed purpose of bringing a monster school system under the immediate control of a set of selfish politicians. But, that, it may be held, concerns the people of Chicago, and no one else.

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At the same time, it may be said that the people of the United States are more or less concerned in the general progress of popular education, and to that end desire an efficient school system in every hamlet and city of the country. The city of Chicago, by virtue of its economic, civic, and social importance, is expected to set an example in school-administrative effort. Every large city in America strives for the excellence of its public schools, and to that end places them in control of high-minded men and women who have no selfish ends to subserve.

The city of Chicago has been afflicted for many years with a condition which has placed its school system more or less under political control. School administrators who have sought to combat this condition have usually come to grief. Some of these administrators have been among the strongest educators in the land. McAndrew, who stands at the head of American educators in point of scholarship and leadership, will unquestionably share the fate of his illustrious predecessors.

The remedy will not come until the people of Chicago, the rank and file of citizenship, will discriminate between the ward politician and the schoolmaster, and realize that the latter, and not the former, must manage the schools. Until that realization has come, the schools will continue to be the prey of aldermen and ward leaders, and the tumult will always be on when the school administrator runs counter to their dictum.

Fortunately, the Chicago case is exceptional and singular. The other American cities, large and small, have in the main progressed along school-administrative lines, and are protecting the school interests against selfish intrigue and political manipulation.

### SCHOOL CONTROL BY PROFESSIONAL EDUCATORS OR POLITICIANS

The thought that the American schools ought to be exclusively controlled by educators, thus excluding from participation a lay citizenship, is occasionally advanced. At the Seattle meeting of the National Education Association a former college president, who had been removed from his position by the state authorities, charged that the politician exerted an evil influence over the educational destinies of the land, and that the schools must eventually come under the complete domination of the schoolmaster if they are to serve the nation to their fullest.

Among the enemies of education he pointed to "the arrogant, whom the accidents of politics have brought to transient power; the demagogue, who has temporarily grabbed the public mind; the selfish, who would sell the children into the half slavery of a poor education; and the ignorant, who know not truth nor wisdom and yet assert it."

After drawing this gloomy picture the distinguished educator according to a news report, "deplored any sort of control or influence in the schools other than that of professional educators, save, of course, those who run the machinery for providing money and the building. He said that political interference with the school threatens not only to engulf education, but perils effective democratic government as well."

No one concerned in the progress of popular education would for one moment tolerate political control of the spoils type in any branch of government, and certainly not in the administration of the schools. Nor can any one assert that the American schools of today are dominated by the type of politicians above indicated. A college president may have lost his job because perchance he may have displeased a politician, and a school superintendent may have been removed in an unfair manner, but a sweeping indictment of modern school administration, as exemplified in the United States at this time, is as uncalled for as it is sensational and even ridiculous.

But, the distinguished educator jumps from one extreme to the other. He charges on the one hand that the politician would sell the American children into half slavery, and then proposes that the schools be given over to the sole care of the professional educator, forgetting that one of the finest traditions of the country's system of school administration is found in the jointure between educator and citizen in making for popular education and the training of the youth.

The editor of the St. Louis Globe-Democrat discusses the subject of school control by politicians versus the professional educator in the following manner:

"But keeping the schools out of the hands of the politicians does not mean that they should be permitted to fall completely into the hands of professional educators. Past experience shows that there is needed a strong element in boards of education reflective of the ideas and desires of the intelligent citizenship whose thought has not been shaped within the somewhat narrow lines of the educational system. Until somewhat recent years our public schools were managed too closely along purely literary lines. They were looked upon as mere stepping stones to the state university, instead of the doorway into actual life conditions and citizenship. There has been a considerable change in this respect and the schools are now being managed more than formerly in the interests of those who have no prospect of going to the university, who constitute the majority of the pupils. This is less a development from within the educational lines than a result of growing sentiment on the outside, reflected by the noneducational element elected to school boards. It would be difficult to convince the people that the schools would better serve the purposes of public education or be more democratic in their character and results if left entirely in the hands of educators than they do now with a large representation of intelligent laymen in their management."

American educators, on the whole, are well satisfied that the present division of duties and responsibilities between the business and professional factors, between board of education and educational expert known as the superintendent, is working satisfactorily and well. They have striven for years to secure a clearer conception of the scope and function of the two, and to bring about the very relations which now govern the administration of the schools. These conceptions are the result of many years of progress in which radical changes and many refinements were achieved.

No educator, identified with the popular educational labors of the land today, would deem it wise to throw overboard the institution known as the modern board of education, and attempt to sail the educational craft without the aid and cooperation of a noneducator citizenship crew.

# THE LINDBERGH ACHIEVEMENT AND THE SCHOOL LESSON

The world's most idolized hero for the moment is a mere boy who has set an example in physical courage and in daring seldom paralleled in similar undertakings. Two continents have grown wild in their enthusiasm over a flyer who jumped across the ocean from New York to Paris in thirty-three-and-one-half hours, and who accepts the homage paid him with becoming modesty.

That the feat has stirred the imagination, and aroused the ambition of every American boy is only natural. If, however, Lindbergh has demonstrated physical courage of a rare type, he has done something more in that he undertook to understand his task before he entered upon it.

He had made a careful study of all the exigencies that went with the undertaking. He knew his aeroplane as a mother knows her child, and knew what it could do under all sorts of weather conditions. He was informed on the atmospheric elements that he must contend with. The sky with its temperature variations, its clouds and clear spaces, its air pockets and what not, were no mystery to him.

In brief, Lindbergh had a thorough grasp of his job before he embarked upon it. His physical courage was not prompted by a foolhardy daring or a mere trust-to-luck gamble. He looked before he leaped.

The lesson which the American pupil must draw from this epoch-making achievement is that every worthwhile undertaking must be preceded by adequate preparation. It also demonstrates that knowledge inspires confidence, and that when it comes to a display of courage that such courage must measure in a sane and circumspect manner the hazard involved; that knowledge must be sufficient to determine whether the chances are in favor or against the enterprise.

The American youth must primarily draw the lesson of thoroughness from the Lindbergh achievement. The jump into a life's career means preparation and an understanding of the exigencies, the demands, and the dangers to be encountered if success is to be achieved.

# Standardizing the Management of High-School Athletics

W. A. Stockinger, Superintendent of Schools, Noblesville, Ind.

This paper is based upon a study initiated by the Indiana Research Club of City Superintendents. From the discussions in this club it was evident that in some of the Indiana high schools there has been mismanagement and loose financing in athletic activities. As a novice in this club the writer was drafted to gather data and to put in tangible form a statement of the best practices in representative schools.

Instances of irregularities have occurred in Indiana as is well known to many principals and superintendents. Bitter feelings and sharp controversies have occurred when such irregularities were uncovered. Where coaches and principals have undertaken single handed to manage and finance athletics they have eventually come to grief. No type of extra-curricular activity can expect to function efficiently unless it has a democratic organization. One-man management is not conducive to good financing of school enterprises, and such practices often lead to upheavals. It thus became the thought of the club that if some system of standardizing could be worked out, the job of correcting local irregularities would be easier for the local principals and superintendents.

In order to get at the methods of management a questionary was built and sent to 80 high-school principals, and in order to limit expenses only representative schools—large, middle, and small, urban and rural—were asked for data. Of these 59 responded in carefully prepared answers and comments.

The schools which reported may be classified as follows: Large schools, 16; middle size, 21; small schools, 20; urban schools, 30; rural schools, 26. Of the group responding, 27 were county-seat towns and cities. The replies covered a student enrollment of 20,565. The smallest school replying had an enrollment of 44, and the largest school enrolled, 2,641, the average enrollment was 361. All of these schools are members of the Indiana-High-School Athletic Association.

The first question was, "Do you have an athletic association?" The answers were 32, yes; 25, no. The membership of the associations is made up of students and teachers, who in the various schools, receive different benefits according to membership fee. This fee ranges from 25 cents to \$1, with 50 cents as the prevailing charge.

A few of the benefits are reported as follows: In 4 schools the membership includes admission to the first event in each athletic branch; in 16 schools a vote in the election of the athletic board is the only prize; in eight schools it means a reduction in the price of the season ticket in basket ball; in 12 schools no benefit or preferment is accorded beyond the call of loyalty to the school.

The usual organization of the local athletic boards in Indiana consists of the high-school principal, as president, the coach for boys, the coach for girls, a senior and a junior elected by these classes. In several schools the superintendent is a member of this board to serve as a connecting link with the board of education.

In one large school the boys and girls have separate associations. In another the men of the faculty are invested with the usual powers of the athletic association.

The questionary brings out the fact that the alumni of the high schools in Indiana are as a rule disinterested in organized support of athletics. Forty-two of the 59 schools report no formidable effort of the alumni to help local school athletics. Only one school reports an

active alumni in the sponsorship of sports in the high school.

To the question, "Who is your treasurer?" the replies were as follows: A teacher, in 26 schools; the principal, in 20; a student, in 5; the superintendent, in 3; the coach, in 1; an alumnus, in 1; and a trustee, in 1. In 6 schools the treasurer is under bond. The response of the principals on the matter of bonding the treasurer is decidedly opposed as unnecessary and unethical. The treasurer's accounts almost unanimously are audited and the reports are made public.

To the question "Who does your buying?" the answers ran as follows: The principal alone, 22; the coach alone, 8; the coach and the principal together, 21; the principal, the coach, and the superintendent together, 1. Seventeen schools do all their buying from home merchants, 28 go out of town to buy all and 10 divide their trade. The complaint is quite general that home merchants cannot get quality; they also cause delay and are guilty of overcharges. Principals are willing to pay more at home, other things being equal. The complaints against jobbers are few and personal forty principals report no complaints.

"What is done with athletic savings?" Seventeen schools report that they "have none," 22 schools have savings deposits laid up for future deficits, and 17 report contributions to the gymnasium fund.

Nineteen of the schools reporting play football and of these, 8 own their fields. The others rent at a charge from \$50 to \$300 per year. Nine report their fields adjacent to the school building and showers; five have to travel a distance from one half to a mile, and two are situated more than a mile from the field.

Twenty-one schools report ownership of basketball floors. Nine rent a floor at a cost of \$1 to \$2 an hour both for practice and play. Some rent by the game, ranging from \$4 to \$15 per night. One school pays 25 per cent of the gross receipts, for a college-gymnasium floor.

Seating capacities range from 0 to 6,000, with 800 to 1,200 as the average capacity. Sixteen schools have occasional overflow crowds, even in large gymnasiums. One school reports an overflow crowd when the team is going good—an experience quite common.

Single admissions to football games ranges from 35 to 50 cents, with the latter charge prevailing. When season tickets to football games are used, some sell at \$2 but most sell at \$2.50.

For basketball games, 24 schools make a 35-cent public charge, 18 charge 25 cents, and 11 charge 50 cents. Special rates of about three fifths are charged the student body. In basketball there is quite a variation in season tickets. Nineteen schools do not bother with them. Ten sell season tickets at \$2.50 and 9 charge \$2. Four schools charge \$5 and one last year charged \$10 in a campaign for a new gymnasium. The tendency is to popularize prices rather than take in large receipts. The I.-H.-S. A. A. is about right in charging 35 or 40 cents per session at sectional games and 50 cents at regional games and state tourneys.

Some interesting data were obtained on the present fees paid to football and basketball officials. Sixteen schools have not been paying over \$15 and expenses for referees and less for umpires and head linesmen. Eight schools have been paying \$25 flat; very few over that. Basketball officials cost less; 27 schools pay \$10 and expenses. Twenty-four schools pay \$15, usually flat. Some few pay \$8 and some \$12.

Three schools have paid \$25 for major games. The present charge for football officials runs around \$15 and basketball, \$12.

The question of a reasonable fee plus expenses as regarded by principals brought out some interesting comment. Thirty-nine principals think \$10 is sufficient for first officials and \$5 to \$8 for seconds. Ten principals think \$15 would be more commensurate with the service rendered, with \$10 as the fee for seconds. All agree that good service is worth a higher fee. Some of the principals think there should be a standardized price, and others regard such a step as a good way to demoralize the official market. Considering all things this seems to be a matter of supply and demand, and the principal must judge for himself if he is paying too much for what he is getting.

The vote on having two officials in basketball is significant. Twenty-one principals favor two officials unconditionally, while 22 favor two only in important games and tourneys and 13 see no justification ever to have more than one official. While there are major and minor games, it is doubtful if there is such a thing as an unimportant game.

All the schools report that they hold "pep" meetings and agree that these are conducive to good sportsmanship and healthy school spirit. This better school spirit has influenced the public to a much better attitude in recent years. The spirit of rivalry between schools, principals say, is intense though not bitter. Very little "razzing" of officials is reported. The disposition to bet on games is disappearing. The time of shaking bills in bunches at a high-school game has passed. Very few, if any, school officials will tolerate it for one moment.

Some principals think that "razzing" is a good indication that bets are being made. Betting and "razzing" go together, and it is well to watch them, but not to mistake the "razzing" for overanxiety to win.

The principals are unanimous in their tests mony on material improvement of sportsm ship in recent years. Well-regulated standar and fair administration by the I.-H.-S. A. has accomplished wonders in Indiana high-school athletics. The benefits derived are intestimable.

The father of one of our boys was standing with the writer recently watching scrimmage practice. He told how he had played on the Noblesville football team in 1900. They played against Lapel that year. By the end of the game Noblesville had but three bona-fide student players on the field. Lapel was even in worse shape as her entire line-up consisted of glass blowe s. Slugging, black eyes, broken ribs were the thief elements of heroism in the players. This old-time player was quite sure that neither principal was present. He thought that Noblesville had one teacher with the team. If this was typical of high-school athletics in 1900, Indiana has come a long ways since.

Thirty-seven schools give awards for athletic excellence, and of these 24 give sweaters, 11 give nothing beyond letters. Eight schools limit sweaters to seniors who have won three letters in a given branch of athletics. Sixteen schools give no awards whatever.

The cost of sweaters ranges from \$8 to \$12, and 9 schools indicate that \$9 is the maximum cost. Perhaps some are able to get better sweaters at \$9 than others at \$12. Some schools buy sweaters if they have the money. This may account for the fact that 16 schools have the definite rule not to give sweaters.

Twenty schools say there is a wide variation in the treatment accorded to visiting teams. Twenty-six say they have little complaint to make on the whole. Courtesy, hospitality, and sociability are the qualities most frequently

(Concluded on Page 133)



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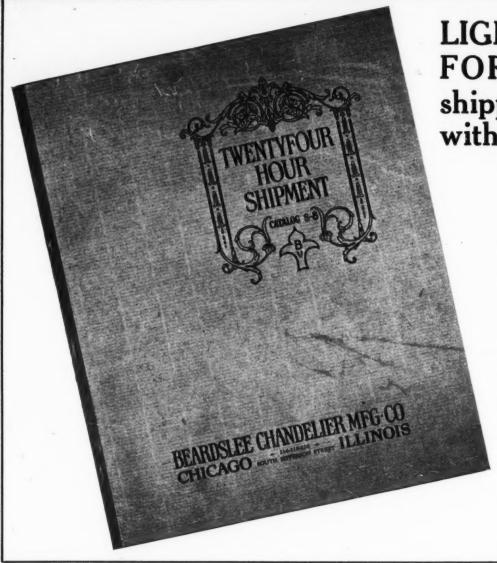
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AUTHORITY UNDER THE CONSTITU-TION TO PROVIDE FOR EDUCATION

Mr. Henry St. George Tucker, president of the American Bar Association, discusses in the July issue of the American Bar Association Journal, the position of Judge Story on the "general welfare clause" of the Constitution. Mr. Tucker shows that if the object selected by Congress for legislation under the general-welfare clause is subject to tion under the general-welfare clause is subject to the control of the states, Congress has no power to legislate or to appropriate money for such an object, for if the Constitution gives the power over this subject to the states, the act of Congress be-comes void. In the proposed educational bill, the subject of which under the Constitution is reserved to the states for their determination, Mr. Tucker says it may well be that the general welfare of the country would be promoted by the education of every child in every state of the Union; but, since the states alone have the power to control educathe states alone have the power to control education, Congress of course, cannot assume the duty. In Gibbons vs. Ogden, in discussing the powers of taxation, the power belonging to the states and the Federal Government alike, Congress is authorized to lay and collect taxes, to pay debts, etc. This does not interfere with the power of the states to tax for the support of their own governments, nor in the correction of their own governments, nor is the exercise of that power by the states the exer-cise of any portion that is granted to the United States.

And what purposes or objects are within the exclusive power of the states? Everything except those granted to Congress in the Constitution. This simple statement of the great chief justice, who did more to expound the Constitution than any man who ever sat upon the supreme bench, is the complete and final answer to the absurd claims of the existence of a general-welfare clause, under which Congress can appropriate money for any cause that they may deem for the general welfare of the people of the United States.

What is the meaning of the words "United States" in the clause? Would it mean to pay the debts of the people of the United States, or to pay the debts of the government of the United States? The words "the people" are omitted, and in this form, clearly it would mean the debts of the United States Government. The words "United States" would, therefore, mean the Government of the United States under the Constitution. A careful examination of the sentence "Congress shall have power to lay and collect taxes, duties, imposts, and excises, to pay the debts and provide for the common defense and general welfare of the United States" shows beyond question that the common defense and general welfare contemplated was not that of the people of the United States, and therefore, when under this construction, an appropriation of \$100,000,000 is asked for out of the treasury to be applied to education in the United States, there is no authority for it even under this supposed general-welfare clause, because it specifically posed general-weltare clause, because it specifically declares that the debts to be paid and the welfare to be secured are not those of the people of the United States but of the government of the United States. This view has been confirmed by Mr. George Ticknor Curtis, a scholarly student of the Constitution, in an address before the Georgetown University Law School in February, 1886.

RECENT DECISIONS Discretion by a school board in expending school funds is not subject to judicial control, but a question of exceeding statutory power is.—Schmidt v. Blair, 213 Northwestern reporter, 593, Iowa.

Schools and School Districts
Excusing pupils a half hour weekly for religious instruction is held not unconstitutional use of public property or money in aid of denominational schools (New York Constitution, art. 9, \$4).—People ex rel. 195, affirming order 219 N.Y.S. 189, 219 Appellate Division 233, which affirmed (Sup.) 215 New York Supreme 632, 127 Misc. reporter, 135, New York.

When the legislature itself creates a special school district, neither the county board of education nor any other governmental agency can change the boundaries thereof without legislative authority (Arkansas acts of 1915, p. 1280).—Carter Special School Dist. v. Hollis Special School Dist., 293 Southwestern reporter, 722, Ark.

A school district, dissolved under a void order, and erroneously deprived of revenue, should enjoin wrongful assessment and apportionment of taxes or sue the district erroneously receiving funds before they are expended.—Carter Special School Dist. v. Hollis Special School Dist., 293 Southwestern r

porter, 722, Ark.

A county board of education cannot dissolve special school district formed by a legislative a —Park v. Rural Special School Dist. No. 26, 2 Southwestern reporter, 1035, Ark.

School-District Government Members of a board of education are held "inferior officers" within the Constitution which provides that such may be exempted from taking oath of office.—Illinois Constitution, art. 5 §25).—People Anderson, 156 Northeastern reporter, 471, 325,

The directors of a school district possess only such power as is conferred on them by statute.—Scott v. Magazine Special School Dist. No. 15, 294 Southwestern reporter, 365, Ark.

School-District Property

A sale by directors of school property under an agreement that the purchaser would maintain the school and receive the pupils of the district is held authorized (Crawford & Moses' Digest, §§ 8942, 8972).—Scott v. Magazine Special School Dist. No. 152 294 Southwesters reporter, 265 Actology. 15, 294 Southwestern reporter, 365, Ark.

A deed providing for reverter if the property was not used for school purposes is held not to convey fee-simple title, because no limitation was contained

ree-simple title, because no limitation was contained in the habendum clause.—Bowling v. Grace, 293 Southwestern reporter, 964, 219 Kentucky, 486.

That a construction superintendent ceased work before the completion of a school building, after working less than the period for which he claimed agreed compensation, is held not to authorize an instructed verdict against him in an action on the contractor's bond.—Massachusetts Bonding & Insurance Co. v. Steele, 293 Southwestern reporter.

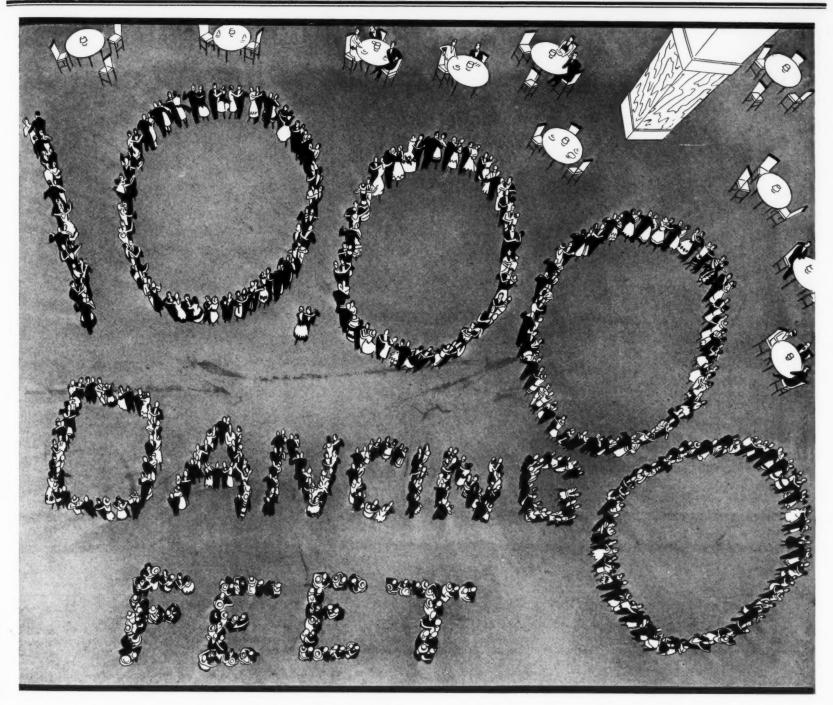
School-District Taxation

Indebtedness on school-district bonds is that of a district, not of a county.—Jarvis v. Hammons, 256 Pacific reporter, 362, Ariz.

County supervisors cannot issue building bonds.

County supervisors cannot issue building bonds of a school district without adjudicating that bonds, with bonded and floating debt, will not exceed limited percentage. Miss. Laws of 1924, c. 283, § 189.—Board of Supervisors of Lowndes county v. Ottley, 112 Southern reporter, 466, Miss.

A contract for the sale of school bonds providing for brokerage fee is held not to violate a statute prohibiting the sale of bonds for less than par value (Concluded on Page 70)



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# Introducing Safety into Terrazzo

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T-187A

(Continued from Page 68)

(Arkansas Acts of 1925, p. 876).—Park v. Rural Special School Dist. No. 26, 293 Southwestern reporter, 1035, Ark.

porter, 1035, Ark.

School-building bonds, if issued without the authority of the electors in a rural special-school district, are void (Arkansas Acts of 1925, p. 876).—Park v. Rural Special School Dist. No. 26, 293 Southwestern reporter, 1035, Ark.

Money received by a school district from railroad taxes and money remaining in the treasury from the previous year go only into the teachers' fund. (Missouri revised statutes of 1919, §11223).—State ex rel. Hultz v. Bowman, 294 Southwestern reporter, 107, Missouri Appellate.

The expenditure of school funds to transport children outside the district between schools for school contests, and teachers to conventions, is held properly enjoined (Iowa code of 1924, § 4179-

properly enjoined (Iowa code of 1924, § 4179-4182).—Schmidt v. Blair, 213 Northwestern reporter, 593, Iowa.

A school district, common or high, can sue or be sued in its own name.—Jarvis v. Hammons, 256 Pacific reporter, 362, Ariz.

Teachers

Holding that a county board of education may require higher educational qualifications of teachers than are necessary to obtain a license does not violate a requirement of a uniform school system (Ky. statutes, §4399a4; Ky. supplement of 1926, § 4399a7; Ky. acts of 1924, c. 63, § 13, 16).—Daviess County Board of Education v. Vanover, 293 Southwestern reporter, 1063, Ky.

western reporter, 1063, Ky.

A county board of education may require teachers to have higher educational qualifications than are necessary to obtain an elementary second-grade license (Ky. statutes, § 4399a-4; Ky. supplement of 1926, §§ 4399a7; Ky. acts of 1924, c. 63, §§ 13, 15).

—Daviess County Board of Education v. Vanover, 1063. Ky.

—Daviess County Board of Education v. Vanover, 293 Southwestern reporter, 1063, Ky.

A statute authorizing a board to determine "educational policies" of a county implies the power to prescribe the qualifications of the teachers (Ky. statutes, § 4399a4; Ky. supplement of 1926, § 4399a7).—Daviess County Board of Education v. Vanover, 293 Southwestern reporter, 1063, Ky.

A county board of education has discretion to reject persons recommended as teachers by subdistrict trustees (Ky. supplement of 1926, § 4399a7).

—Foreman v. Board of Education of Christian county, 293 Southwestern reporter, 1058, Ky.

A school board's rejection of teachers recommended by a subdistrict trustee is held proper exercise of discretion, where one had been absent without excuse and the other lacked educational qualifications (Ky. state supplement of 1926, § 4399a7).—Foreman v. Board of Education of Christian county, 293 Southwestern reporter, 1058,

Ky.

A provision in a teacher's contract that either party might terminate it by notice is held void; a teacher not being dismissible at pleasure, but only for causes enumerated in the statute.—Sarle v. School Dist. No. 27 of Pima county, 255 Pacific reporter, 994, Ariz.

teacher, dismissed before school began, may sue for damages immediately.—Sarle v. School Dist. No. 27 of Pima county, 255 Pacific reporter, 994, Ariz.

A wrongfully dismissed teacher may recover damages sustained and damages that would be sustained during the contract period, less probable earnings obtainable in other suitable employment by reasonable diligence.—Sarle v. School Dist. No. 27 of Pima county, 255 Pacific reporter, 994, Ariz.

A salary schedule, preserving the existing rights under a former schedule discriminating between men and women teachers is held valid, notwithstanding a statute prohibiting discrimination (New York Education Law, 569, as added by the New York Laws of 1924, c. 614).—Moses v. Board of Education of City of Syracuse, 156 Northeastern reporter, 631, 245 N. Y. 106.

A child's right to attend school without paying tuition depends on the parents' legal residence (C. S., §§ 828, 908, 998, 1000, 1001, and § 999, as amended by the Idaho laws of 1921, c. 224; laws of 1921, c. 215, § 37).—Smith v. Binford, 256 Pacific reporter, 366, Idaho.

The refusal of a county board of education to continue transportation of pupils which would d.minish the school funds belonging to the other districts is held not an abuse of discretion (Georgia acts of 1919, p. 327, § 93).—Douglas v. Board of Education of Johnson county, 138 Southeastern reporter, 226, Ga.

A school board is held limited by statute to the transportation of children living more than a mile from school "to and from school" over designated routes for five days a week (Iowa code of 1924, §§ 4179-4182).--Schmidt v. Blair, 213 Northwestern reporter, 593, Iowa

A school board has no discretion to extend it statutory power to furnish transportation for school children (Iowa code of 1924, §§ 4179-4182 -Schmidt v. Blair, 213 Northwestern reporter, 59.

Excusing children a half hour weekly to attend religious instruction is held not to violate the compulsory education law (New York Education Law, § 621).—People ex rel. Lewis v. Graves, 156 Northeastern reporter, 663, 245 N. Y. 195, affirming order 219 N. Y. S. 189, 219 Appellate Division 233, which affirmed supplement 215 N. Y. S. 632, 127 Miscellaneous reporter, 135, N. Y.

#### LAW AND LEGISLATION

—The Wisconsin department of public instruc-tion has ruled that neither the school board nor the district is liable in damages for any accident occurring to children while playing in or about the

occurring to children while playing in or about the school building, and with schoolground equipment. The department has also ruled that the members of a school board have authority to dismiss a teacher if it is known to them and susceptible of proof that the teacher is incompetent and failing to meet the demands of the school. Under no circumstances should a board permit the school to be a failure because of the incompetency of the teacher. teacher.

The department points out that the rules of the the department points out that the rules of the state board of health do not make any statement regarding the required health of the teacher. It is apparently taken for granted that a teacher who feels unfit to properly discharge the duties of the school for the day, will notify the school board that the school will not be in session.

The attorney general of Wisconsin has given a ruling to Director George P. Hambrecht of the state board of vocational education, in which he holds that a boy between the ages of 17 and 18 who is subject to the vocational school law, but refuses to attend, and whose parents cannot compal him to attend is a delirquent and may be pel him to attend, is a delinquent, and may be proceeded against as a delinquent child.

—The Wisconsin department of public instruc-

tion has ruled that an insurance agent, who is a member of a school board, is prohibited by law from insuring school property in his district. An attempt to do so places his associate members as

(Concluded on Page 72)



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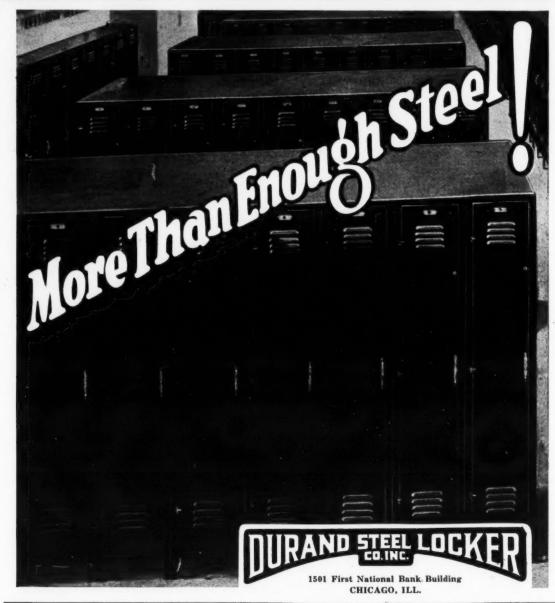
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(Concluded from Page 70)

well as himself in an embarrassing position because the premium if paid is subject to recovery by any taxpayer, because the clerk subjects himself to a forfeiture of not less than \$20 nor more than \$100 for drawing an illegal order, and further, that in case of the destruction of the property, the company may refuse to pay the loss on the ground that the insurance policy was illegally issued.

The department has also ruled that the statute does not require that school boards in village and country school districts school boards in village and

The department has also ruled that the statute does not require that school boards in village and county school districts shall advertise for bids from contractors when school buildings are to be erected in their districts.

—The school board of Fort Lee, N. J., which is about to engage in a \$675,000 school-building project, has declined to employ a special legal adviser. The local newspaper comments upon the

"There is little doubt but that the determination to proceed without counsel will prove to be false economy. The praiseworthy manner in which the board has administered its duties thus far needs no citation. It would be a calamity to have the fine work upset at this late date because of a few

niggardly dollars."
—State Supt. C. W. Taylor of Nebraska has ruled that state funds may not be used for parochial schools. The ruling was in reply to a question as to whether a school district may pay grade pupils' tuition in a convent. State funds may not be used to transport any pupil to a convent, nor to pay the charges to a parent and allow him to use the money to pay board at a parochial school, according to Mr. Taylor's statement. School funds paid directly or indirectly into the treasury of any church school is in violation of the state constitution. This applies not to one denomination, but to all religious faiths.

—An injunction suit has been brought against the board of education of Waterville, Maine, by a contractor who contends that a plumbing job was not awarded to the lowest bidder as provided by law. The board awarded the plumbing contract to a bidder who was \$16 higher than the lowest.

—An official announcement has been issued in Kansas to the effect that the school law compels school boards to make annual statements. The law applies to all school systems having an annual requisition of \$10,000. The report must be printed in a local or county newspaper.

—The board of education of Muskogee, Oklahoma, lost its suit against the board of county commissioners for \$125,000 of the state school fund alleged to be due the board. The court held that the county was not liable as the money had been properly expended by the county superintendent of schools and the county treasurer. The board of education contended that the appropriation should have been made according to the total number of students, both in white and negro schools, instead of only in white schools, as was the case.

—The 1927 Wisconsin legislature has given a great impetus to equalization of educational opportunity in Wisconsin by the enactment of a bill for readjusting the financial aid of the state to common schools.

Under the new law, state aid will be distributed in accordance with local needs, overcoming the handicap of low tax-assessment valuations, so as to give children in elementary schools of poorer districts educational opportunities equivalent to those offered in more wealthy districts.

Distribution of the school fund under the new law will continue on the basis of the number of persons between the ages of 4 and 20 years residing in the district but the seven-tenths mill tax will be raised to one and one-tenth mills. The change is expected to produce \$2,000,000 additional revenue. Under the system of distribution, each school district or city will be allowed \$250 for each elementary teacher employed on March 1, 1927, and a like amount, to be paid out of a tax levied for the purpose by the county, brings the total to \$500 for each teacher.

—The contention is made before the governor of Texas by the American Book Company that the state textbook commission must advertise for bids at the expiration of a textbook contract, and that failure to do so is a violation of the law.

Briefs in support of this position were submitted to the governor by Frank Adrian, southwestern representative of the American Book Company, and Wynne Lay, his assistant. This had to do with the American Book Company's contract to furnish geographies to Texas under a contract which expires Aug. 31, 1928. Recently, the textbook commission advertised for bids on other texts which expire next August, but did not include geographies on recommendation of S. M. N. Marrs, state superintendent of public instruction, who said there would be enough geographies on hand with the nor-

mal purchases this year to carry the pupils the succeeding year. It is this policy that the American Book Company is protesting. Under the new law, three years are given for the gradual introduction of new books where a change is made by the textbook commission. A fourth year is, in effect, added by the policy of permitting expirations to occur and last a year without new adoptions. Since the governor can not be mandamused nor any board of which he is a member, no legal proceedings can be taken to compel the commission to award contracts Oct. 10, when it considers adoptions of other books where the contracts are expiring next August and prior thereto. However, a method is to be found later, it is understood, to mandamus Marrs for a test of the question as to the legal right of the commission to fail to make adoptions on contract expirations.

—The Wisconsin Department of Public Instruction has ruled that the authority of school officers acting as a board extends to all acts affecting the welfare of the school, and the board with the parents, has jurisdiction of matters detrimental to the school interests which may occur when children are off the school grounds.

The department has also ruled that days when school is closed with the consent of the teachers cannot be counted as days taught and should be made up some time during the year.

It is also ruled that a school treasurer who deposits money in his own name must take his chance with other depositors while a bank is being liquidated.

A school board, says the state department, has authority to contract for fuel, light, water, and supplies for the schools, to employ janitors, and to estimate the expense of the schools in the form of a budget. The board has power to determine the textbooks to be used, but these textbooks may not be changed within three years.

—A committee has been named by the Oklahoma Education Association to draft legislation designed to clarify the state school laws. A. G. Bowles, county superintendent of Tulsa county, was named chairman of the committee. Other members are Dr. P. Claxton, superintendent of schools at Tulsa; J. R. Barton, superintendent of Oklahoma City schools; W. B. Bizzell, president of the University of Oklahoma; M. A. Nash, former state superintendent and now president of the Oklahoma College for Women at Chickasha, and Clay W. Kerr, assistant state superintendent.

# Proper for Modern Sanitation as a health many this winter

Inclement weather means greater confinement of school-children indoors. Temperature variations, rain, slush-all combine to lower their resistance. To protect them-in classrooms, corridors, gymnasium, pool, cafeteria -see that hygienic conditions prevent their needless exposure to disease-bearing dirt. The floors, in particular, merit your closest attention. Cleanliness begins with clean floors. Antiquated mopping or pole brush scrubbing are too superficial to provide adequate cleanliness. Even oiled floors require more thorough handling to really remove the dirt and prevent its gathering so quickly. The best way to insure greatest floor sanitation at lowest cost is to provide your school with FINNELL equipment.

#### How the FINNELL Machine Works

With powerful, yet practically noiseless motor, which spins the brushes round over 200 times per minute, the FINNELL routs dirt impossible to remove by hand. It reaches into cracks, depressions, corners, providing a constant supply of clean water as it goes along.

There are eight FINNELL models, made to fill the particular requirements of any school building, large or small. Call upon our engineers to advise, without cost or obligation.

Whether the floors be wood, cork, linoleum, terrazzo, rubber, tile, mastic, composition, concrete . . . the FINNELL leaves them not only clean, but beautiful and better preserved. An occasional FINNELL scrubbing enables the floors to stay clean longer. Greater sanitation, with less work.

#### Waxes, Polishes, Sands, Oils

By instant adjustment, the FINNELL waxes and polishes wood or linoleum to high luster. Yet the floors are never left sticky or slippery. Such treatment gives them a longer life of beauty and utility. The janitor can also re-



Operates Easily Under Stationary Desks

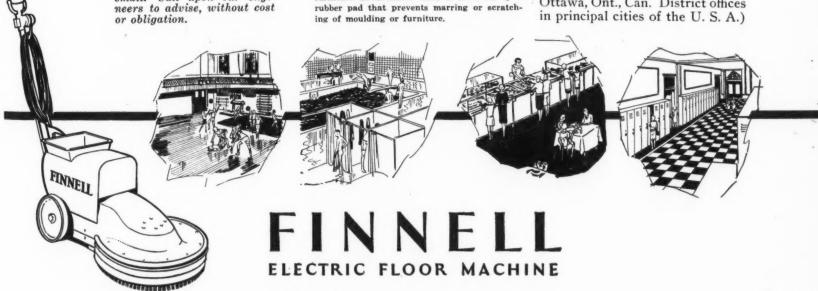
The FINNELL moves in and out with ease—under chairs, cabinets, desks, etc. No need for furniture disturbance. Base is encircled by a rubber pad that prevents marring or scratching of moulding or furniture.

finish worn spots with the FIN-NELL, removing the old surface, sanding, then waxing and polishing. This machine can also be used to oil and dry-scrub oiled floors.

Saves Time, Labor, Money The FINNELL shown below covers ten times as much floor area per hour as the strongest man. Yet it is easy to operate, and cleans under chairs, desks, tables, etc. Hundreds of schools say FINNELL equipment has reduced their floor - maintenance budgets - some by as much as 60%! This saving soon covers the original cost, and makes the equipment a lifetime, low-upkeep investment. Several of the FIN-NELL models are light enough to be transported by auto, and used for a group of schools. Prorated in this way, the immediate investment for each building is very small.

Send for Details and Estimate

The data on how to provide your school-children with cleanest floors at lowest cost, we are sure you will find worth-while and informative. If you wish an estimate of equipment needed and possible saving, send along a description of floors, area, present cleaning method. No obligation incurred. The FINNELL SYSTEM, INC., 610 East St., Elkhart, Ind. (Factories Elkhart, Ind., and Ottawa, Ont., Can. District offices in principal cities of the U. S. A.)



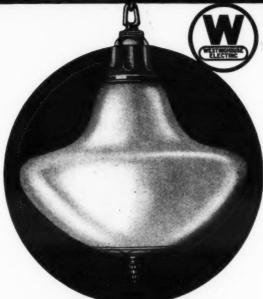
It oils

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# Better Vision



# Better Lessons

GOOD light on dark days means better vision, and better vision means better lessons. That is why leading school authorities throughout the country are turning their attention toward the lighting problem—and Sol-Lux Luminaires.

In school cafeterias, class rooms, corridors, and study halls—any place where children's eyes are put to test day after day—good light is needed. Young eyes must be given ample light to avoid strain, diffused light to protect them against glare.

In designing Sol-Lux Luminaires, engineers had in mind two things; ample light—light that reaches every corner of the room, and yet glareless light—light that does not strain the eyes. The special diffusing glass in Sol-Lux Luminaires takes the glare from the lamp and absorbs only a limited amount of light.

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It contains no filler to fall out, but is thoroughly impregnated with pyroxylin. It cannot crack or "pinhole." Survives even roughest handling.

It is washable. Season after season all grime and fingermarks may be quickly removed with soap, hot or cold water and a brush - the shade made clean as new.

And it is waterproof-rains and dampness cannot harm Tontine. Tontine renders less frequent the need of costly shade replacement. Its use helps keep the upkeep cost of shades unusually low. Write

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WINDOW SHADE

DU PONT OBSERVES A CENTURY AND A QUARTER OF USEFULNESS TO THE AMERICAN PEOPLE.

#### CHICAGO CORRESPONDENCE

William McAndrew, superintendent of schools in Chicago since February 1, 1924, was suspended by the board of education on Monday, August 29, 1927,

the board of education on Monday, August 29, 1927, and his trial was set for September 29.

For several days prior to the move, rumors of suspension grew louder and the superintendent was reputed to be "awaiting the ax." President J. Lewis Coath of the school board had promised a sensational news story to reporters, which would "break" about Sunday, August 28th. When questioned further he gave no response except to say, "When Jack Coath is quiet, people know there's something brewing. I have nothing to say—yet."

The suspension evolved out of charges of insub-

The suspension evolved out of charges of insub-ordination because Superintendent McAndrew sided with 285 "extra teachers" (teachers assigned to principals' offices) in their court fight for an injunction to restrain the school board from supplanting them with civil-service clerks.

Just prior to his suspension, Superintendent McAndrew appeared before the session of eleven school trustees. Facing a school board that he knew was about to throw him out of the school system, and after the charges against him had already been read by the secretary of the board, he arose, and with perfect equanimity delivered what was called the most scathing criticism of school management and school politics that has ever been made before that body.

At the conclusion of his statement and without discussion, the voting started. In a dramatic set-

discussion, the voting started. In a dramatic setting, amid the boom and smoke of flashlights, and the cheers of teachers and principals (for the trustees who voted in favor of Mr. McAndrew), the section of the secti retary slowly called the roll. Ten trustees had voted; the tally was 5 to 5; then, President J. Lewis Coath cast the deciding vote—and suspension of Chicago's school head was an accomplished fact.

A nice point of law is involved in the matter and will probably be settled in the courts, namely: Is the superintendent of schools a mere "hired man" of the school board, or does he enjoy under the state law, prerogatives that cannot be denied him by a hostile school board?

Mr. James Todd etheracy for the board in the state law, prerogatives that cannot be denied him by a hostile school board?

Mr. James Todd, attorney for the board of education, inclines to the opinion that "a superintendent of schools is an executive officer of the The board of its own instance determines educational policies and orders the superintendent to carry them out."

Mr. Angus Roy Shannon, attorney for Superintendent McAndrew and author of the so-called Otis law under which the Chicago schools operate, gives a contrary legal opinion, as follows: "The legislaof the educational department and of the employees therein, subject to the approval of the board. The only power which the board has over the departments is one of approval. By section 129, the board cannot initiate action in any of the three departments. cannot initiate action in any of the three depart-

Eight days after the suspension, the schools opened without a "head." No acting superintendent has been appointed, but the five assistant superintendents have been in charge of the central office.

It is too early to know the reaction of the public to the situation. However, most of the newspapers



WHEN PARENTS SHOULD BEGIN TO TAKE AN INTEREST IN THE PUBLIC SCHOOLS.

—Chicago Tribune

have commented. Apparently most of them regret

have commented. Apparently most of them regret the school-board action; some are silent. The following editorial expressions have appeared:

Herald-Examiner: If anything could be educationally more unfortunate we don't know what it could be. \* \* \* The school board is at this moment, when the schools are about to begin, as tauch on trial before the bar of public opinion as the superintendent is and the result is educational chaos.

Journal: There is perhaps ten per cent insubordination and ninety per cent politics in the suspension of Superintendent McAndrew. But like most things good and evil, the case serves its useful purpose; it enables the school board to make a spectacle of itself and further disgust the thoughtful parents of Chicago with the way in which educational matters are managed in this city. The school board has long been Chicago's greatest source of disturbing noise and unwelcome racket. No relief is in sight. \* \* \* How long, Oh Lord, how long?

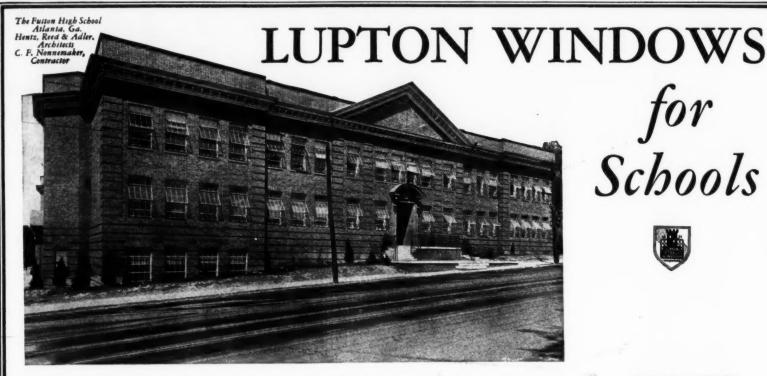
Illinois State Journal: The Chicago board of education has dismissed William McAndrew, superintendent of schools, because he is "the stool pigeon of King George" and was not born in Chicago. \* \* \* The action of the board of education and the reasons assigned could not have been funnier.

Tribune: Typical of the progress made in Chicago public schools during the last three years is the success of the promotional system put in practice by Superintendent McAndrew, his assistants, and the principals and teachers. To go back several years, in 1885 the pupil promotions were 67.8 per cent; in 1897, 81.9 per cent; in 1912-13, 87 per cent. In more recent years in 1925, 91.5 per cent. In more recent years in 1925, 91.5 per cent. In 1926 (with the new system working), 97.6 per cent.

The cost of failures in school to the taxpayer was measured in a study made by the Principals' Club of Chicago. It was found that every repeater meant a waste of \$40 in teaching service alone. In 1924 to 8 buildings in the elementary schools meant an additional \$1,429,840 in teaching, b

There is good evidence of a new spirit in the teaching and administrative personnel of the Chicago public schools. Under the direction of Mr. McAndrew and with the cooperation of the majority of teachers and principals, who are sincerely trying to better the school system and the educational and civic product it turns out, the Chicago schools have been modernized in conformity with the best rules of scientific pedagogy. Advances in the science of education have been tested and put in practice and outworn methods with no better recommendation than habit and tradition have been thrown overboard.

There has been unrest in the schools during the process. Teachers and parents, unmindful that it was necessary to make up for lost time, objected to the modernising process with its necessary researches and inspections. It required some industrious prying to lift the Chicago school system out of its rut and those who felt the hoist of the lever did not enjoy the experience.



for Schools



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dignity so essential to modern school design.

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The results, however, more than justify the means. We are confident that Chicago children are better taught and that they leave school better citizens and wiser than in years gone by. We believe the teaching staff of the schools exhibits a higher standard of efficiency than in the past.

Mr. McAndrew is an educator in the fullest sense of the term and the most worthy superintendent of schools Chicago has had in years.

It is this superintendent whom Mr. J. Lewis Coath, playing a shrill clarinet score in the Down with George V. chorus, says that he will oust. People have become so used to the greed and ignorance of politics that they no longer have backbone enough to rise up and object. Yet we wonder that the parents of Chicago do not make themselves heard in this case, when their children and their children's schools are being tossed into the political jackpot.

In spite of an increased enrollment of 35,000 pupils and the suspension of the superintendent, the Chicago schools opened September 6th without serious incident. A few schools reported difficulty due to exceptionally increased memberships.

due to exceptionally increased memberships.

Early in the summer the school board passed a rule forbidding the appointment of any teacher without formal board action, except that the presi-dent of the board might approve emergency appointments. In former years, the superintendent supervised the opening of school and made immediate appointments which were invariably ratified later by formal board action.

At a meeting of high-school principals held September 9, several principals complained that they lacked teachers to care for increased enrollments. Temporary measures, such as teachers' free periods cancelled, extraordinary number of pupils per teacher, rooms presided over by upper-class stu-dents, etc., were cited. They lamented their inability to get teachers assigned promptly. One principal said his school has eight hundred more pupils enrolled than last year, and, pending action assigning teachers to his school, he would have to send the excess students home.

Apparently the president of the board was in-Apparently the president of the board was insensed at these statements and regarded them as
criticisms of him or the board. He went over to
the meeting and addressed the principals vigorously. During his remarks he stated, "Some of
you principals are unbearable egotists." The
Tribune quotes him later to the effect that the
principals who have opposed the board will be
called before the school-management committee to called before the school-management committee to explain why their schools were not functioning 100 per cent during the first week. He asserted that

the confusion during opening week was due to delays by teachers and principals who waited until the last minute to present emergency matters to the board. "Those principals are the damnedest lot of suckers I've ever seen," he is reported by the

Tribune to have said. The *Tribune* story goes on to state that another school trustee differs with the president, however, and this trustee is quoted to the effect that "The trouble is that the board of education, composed of laymen, is trying to meddle too much in matters that should be handled by the superintendent's staff."

Recently the school board voted to supplant the "extra teachers" in the principals' offices (normal-college graduates holding regular teachers' certificates) with civil-service clerks. Thereupon, the cates) with civil-service clerks. Thereupon, the 285 extra-teachers sought a court injunction to restrain the school board. They quoted State Superintendent Francis G. Blair and Attorney-General Oscar Carlstrom in support of the legality of their claim to being "teachers." Newspaper accounts report statements to the effect that they intimate political intrigue in the school-board action; that divide services amployees are under relition. political intrigue in the school-board action; that civil-service employees are under political control and subject to "assessments" and "duties" at election time, whereas teachers are independent of political control; that instead of being regular civil-service employees, the new clerks would probably be "temporary" sixty-day appointees, satisfactory to the politicians factory to the politicians.

Superintendent McAndrew was subpoenaed as a witness. He repudiated the statement prepared by the school-board attorney to which his signature had been attached, as not representing his own views, and prepared a statement of his own after the board attorney withdrew as his counsel. (This statement and his replies on the witness stand became the basis for the "insubordination" charges on which he was suspended.) The written statement follows in part:

Honorable Fred Bernstein, Master in Chancery, 1031 Burnham Building.

Answer to Bill of Complaint of Julia A. Smith vs. The Board of Education William McAndrew, Superintendent of

Believing that a defendant without legal counsel may himself answer, I beg leave to file this, my answer, to complaint of Julia A. Smith against the

Board of Education and the superintendent of schools of the City of Chicago which complaint is addressed to the honorable judges of the Superior Court of Cook County, in Chancery sitting, and which complaint was on the 18th instant referred by Honorable Judge David to you.

The answer filed with you by James Todd, Esq., Attorney of the Board of Education, was composed without my knowledge or consent; it contains much which I cannot subscribe to. I did not and do not subscribe to it. Attorney Todd, on being so advised, resigned as my counsel. I have none.

I wish to make these points regarding the resolution complained of:

... It was composed without consulting the Board Education's chief educational officer and cannot carried out by him without damage to the tax-

2. The resolution is framed in serious ignorance of educational practices and needs in Chicago public schools and other public schools.

3. It requires appointment of teachers, principals, directors, and supervisors pursuant to a civil-service law

4. It implies that persons disguised as teachers are employed as teachers. There is no such disguise.
5. Extra teachers are teachers and in schools of the large size required by the Board of Education are necessary in the maintenance of a "thorough and efficient system" as required by the State Constitution.
6. The work of extra teachers is preponderatingly educational and requires the professional training of a teacher.

a teacher.
7. Civil-service appointees, unless prepared for teaching, are not competent to render the service

needed. 8. Teachers are exempt from the civil-service re-8. Teachers are exempt from the civil-service requirement.
9. The extra teachers are teachers by common meaning of the word "teacher" and by definition of the highest educational authority in the State.
1A. The Resolution is Impossible of Execution Without Damage.
2A. It is Framed in Ignorance of Practice and Need.
3A. It Stretches Civil-Service Requirement Beyond Its Field.
4A. No Assignments Have Been Made "Under

3A. It Stretches Civil-Service Requirement Beyond Its Field.

4A. No Assignments Have Been Made "Under Guise."

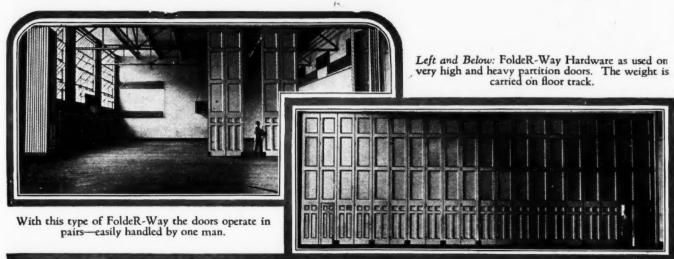
5A. Extra Teachers Are Teachers and Necessary.

6A. The Work of Extra Teachers is Preponderatingly Educational.

7A. Civil-Service Appointees if Untrained as Teachers Are Incompetent for the Service Rendered by Extra Teachers.

8A. Teachers Are Exempt From the Civil-Service Law and Specifically Exempted by the Decision of the Supreme Court in the Present Case.

9A. Extra Teachers Are Teachers by Unstrained Definition and by Highest Educational Authority. These extra teachers have been designated as teachers; since they were instituted, they have performed the duties of teachers. The chief educational officer of the State, the Superintendent of Public Instruction, Francis Blair, states (May 12, 1926): "If this person is a teacher in the sense that she actually teaches (Concluded on Page 78) (Concluded on Page 78)

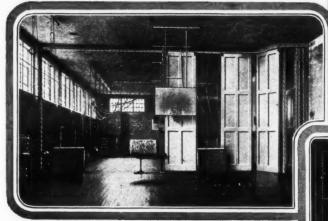




The dining room and ballroom shown above can be separated or quickly made into one room.



Left: This type of FoldeR-Way is particularly adaptable for very wide doors, each handled as a separate unit.



FoldeR-Way METHODS

The type of FoldeR-Way at the left is most desirable for school wardrobes, telephone booths, etc.

DESIGNING hardware for partition doors that slide or fold away requires expert engineering skill. Installing partition doors, however, becomes a simple matter when FoldeR-Way methods are used.

No line is more complete, offers more variety, than FoldeR-Way partition door hardware. Whatever your problem is, from telephone booths to churches, gymnasiums and auditoriums, you are certain of finding FoldeR-Way hardware specially designed for any size or style of sliding or folding partition doors you wish to install. Feel free at any time to consult R-W engineers about any kind of door problems.

The R-W book "Sliding and Folding Partition Door Hardware" contains over 100 photographs, drawings and diagrams illustrating FoldeR-Way Methods and uses. Details of design and engineering are fully explained. Let us send you this book. You will want to retain it in your files for ready reference.

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Milcor Products are available in Steel, "Coppered Metal", ARMCO Ingot Iron, Pure Zinc or Pure Anaconda Copper. Wherever conditions are apt to induce development of rust, we urge the use of pure ARMCO Ingot Iron, Pure Zinc or Pure Copper.

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Stop Cracks!

The interior plastered walls of school buildings are particularly susceptible to cracks. Cracked ceilings constitute a great danger in any building-but particularly where the lives of children are

Two safeguards against cracked ceilings are offered in the Milcor Line. 1. Plast-ering on Milcor Stay-Rib or Netmesh Metal Lath remains crackfree, firesafe and permanently beautiful. 2. Metal Ceilings and Sidewalls offer a highly practical alternative. Metal Ceilings are Depreciation's worst enemy. They are easy to clean, easy to repaint, sanitary, economical, good looking and permanent. Investigate the complete Milcor Line before you remodel or build.

let Depreciation rob the taxpayers of your community. Get acquainted with Milcor Products. MILWAUKEE CORRUGATING Co., Milwaukee, Wis.

HUNDREDS of millions of dollars are needlessly strewn in the path of Depreciation every

year through failure to build first for safety. Don't

# MILCO

#### FIRESAFE SHEET METAL BUILDING PRODUCTS

(Concluded from Page 76)

(Concluded from Page 76)
or holds herself in readiness to teach at the order
of her superior, there can be no doubt about the
necessity of her holding a teacher's certificate." Now,
when a Supreme Court decision rules that certain persons except teachers must be civil-service appointees
to say that these teachers are not teachers because
to the teaching experience there has been added the
supplementary advantage of some clerical knowledge
and, therefore, they are not teachers but clerks, is
as absurd as, to rule that a woman with a derby hat
on is a man, or an orderly who typewrites a letter
for the colonel thereby becomes a civilian; or a sailor
who helps the captain write the ship's log is a landsman.

who helps the captain write the ship's log is a landsman.

9B. The intent of the Board of Education, it is evident, is a speedy compliance with the law as expressed to it by the honorable attorney. In its interpretation he reads into it a new definition of teacher. When it comes to educational definitions, the men and women in the school system who have studied and practiced education for a generation, the head of the educational department of the state, deserve consideration. A teacher is one who teaches, a board of education has the right to designate duties as the duties of a teacher, even though she makes records and writes letters, as does every one of the 12,585 members of the education department.

10. Conclusion. Although I was not cognizant of the intention of the taxpayer to complain of this resolution, the fact that it was drawn without consultation of the Department of Education to which is necessarily entrusted educational affairs and which should be consulted on educational matters, I feel that the haste and misunderstanding evident as responsible for this resolution, justifies all legitimate means to prevent the resolution to be put into effect, and believe that the taxpayer's request for permanent prevention of carrying out this resolution should be granted. Therefore, as a defendant I admit the allegation of the bill and admit that the complainant is entitled to the relief asked.

WM. McANDREW,

wM. McANDREW,
Superintendent of Schools.
The decision of the Master-in-Chancery was that
the school board has the power to make the change to civil-service clerks regardless of the wisdom of

so doing. The newly-established "direct" plan of cleaning and firing the schools is likely to prove more costly than the former "contract" plan, according to a story in the *Tribune*. The story contains the following points: There will be 1,900 men and women on the school payroll as "janitor-firemen, firemenjanitors, school-plant engineers, and just plain janitors and janitresses." The payroll, by conserva-tive estimate, will be \$1,300,000 larger than last An estimate for a typical elementary school is: \$7,438 last year; \$10,800 this year under the new plan. "Every day, it is said, the importunities of ward committeemen and precinct captains seeking jobs in the schools for their constituents become

more insistent. With the business of cleaning and firing up the schools transferred from the contract system to civil service, creating a flexible number of jobs, the ward leaders are scrambling to repay election favors to those who might otherwise be 'left in the cold,' it was asserted."

The increased cost comes out of the educational fund.

The departments of school statistics, of contracts, and of building survey, have been combined with a newly-created department of constructive publicity, and Mr. Grover Sexton, formerly a reporter for the *Herald-Examiner*, has been placed in charge

at a salary of \$6,000 per year.

What may be known as the "Thompson plan" for what may be known as the "Thompson plan" for schoolhouses, is being considered by the school board. The plan, as worked out by school architect John C. Christensen, presents a three-story schoolhouse of handsome design. Not only is it to be surrounded by a playground, but the plan also calls for a roof-garden playground, covering the top of the school. The walls would be built up to make the recreation place safe. This type of school, it is estimated by its proponents, would be about it is estimated by its proponents, would be about

40 per cent cheaper per seat than the schools that have been built in late years.

NATIONAL ASSOCIATION BUSINESS OFFICIALS IN DENVER TO MEET

Association of School Business Officials will hold its next meeting in May, 1928, at Denver, Colo.

In view of the fact that travel in the Colorado mountains does not open until the week of May 22, and in order that lower rates may be obtained by some of the members, the executive committee has asked for a vote on the question of changing the date of the next meeting from May 15, the regular meeting date, to May 22.

SCHOOL-BOARD CONVENTIONS

—The Nodaway county school-board convention was held at Marysville, Mo., in charge of Mr. Leslie G. Somerville, county superintendent. The talks were made by Dr. C. P. Fryer, health officer, Edward Adams, superintendent of the Barnard schools and County Millor superintendent of the Barnard schools, and Gerhard Miller, superintendent of the Elmo schools.

-Between 60 and 75 school directors of Perry county, Arkansas, met at Perryville upon the call of County Superintendent Hudson. Speakers included Dr. Howard A. Dawson of the state board of education, Superintendent D. T. Henderson of

of education, Superintendent D. T. Henderson of Pulaski county, and John H. White of the Perry county board of education.

Newspaper Item: While it is, of course, necessary to take a somewhat serious view of our school board as at present controlled, it would be very foolish to fail to get out of it all the fun there is in it—which is much. Nothing, for example, is funnier than its undoubted belief that it is serving the public interest. How it can, with a straight face, do all it has done and is doing passes belief. do all it has done and is doing passes belief. We admit that the humor is rather grim, but still it is there. It is the humor of ridiculousness—a ridiculousness which is fairly yelled by the contrast between a real school board and the school board of the city of Indianapolis. It was Shylock who Shylock remarked that "ships are but boards"—a prophetic utterance truly. The irony of the situation in which the people of Indianapolis find themselvesand which they, by majority vote, brought on them-selves—is itself grin-provoking, though, of course, the grin is sardonic. We certainly haniest school board in the whole world. We certainly have the fun-



THE NEW TEACHER .- Chicago Tribune.



EAST HIGH SCHOOL, YOUNGSTOWN, OHIO.
Equipped with sixty-three PeerVent Units. Paul Boucherle, Architect. W. J. Scholl Company, Contractors.

### "PeerVent System most satisfactory"

Whiton and McMahon, Architects, Hartford, Conn., write:

"We are pleased to testify to our regard for the Peerless System. It has given satisfactory and definite service and we have found it to be superior to any other systems of ventilation with which we have had experience. No figures are available as to actual savings in cost of fuel, etc., as compared with others; however, we believe that actual savings are accomplished. We find the planning and installation of Peerless System much easier than a central fan or other system. Our attention was first attracted to the Peerless System because of several important factors: 1. We are able to save height in our school basements by the elimination of the exceedingly large and unsightly air ducts, which so mar the looks and the practical uses of school basements and which are necessitated by the central fan system. 2. We are able to save on floor space by the elimination of the fresh air flues required by the central or gravity systems. 3. The fresh air supply to each room is direct, so that the air can be controlled and regulated separately as regards weather and direction and force of winds. 4. The hum and noise of the fans are practically eleminated in the Peerless System. In the central fan systems the noises and hums are very apparent on account of the size of the fan and the fact that this noise is carried through the air ducts even though sound deadening devices are employed in the fan room. In planning schools we have used practically every system of ventilation-the central fan systems (direct and re-circulation), the so-called "gravity systems," and even the system of air through boxes under radiators, but our experience has demonstrated to us that the Peerless System is the most satisfactory we have yet seen from the standpoint of results and the savings in space required for ventilation."

Write for the PeerVent Catalogue and list of installations in your vicinity. If you'd like to see our local representative, please so state.

#### PEERLESS UNIT VENTILATION CO., INC.

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PITTSBURGH
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Heating and Ventilating Units



NEW SCHOOL PROGRAM TO COST OVER \$100,000,000

—The building bureau of the New York City department of education has been steadily increas-ing the number of buildings under contract and planned during the year. As a result of the speeding up of the building program there will be a substantial increase in the number of new schools that will be opened between July, 1927, and December, 1928.

The new school-building program of the building bureau is expected to involve an expenditure of about \$135,000,000. The projects listed will require \$100,000,000 to complete and additional buildings and additions included in the budget estimate for 1928 will cost another \$35,000,000.

The new budget estimate indicates that during the next school year three new high schools and 29 elementary schools will be completed, not taking into account the additions. The new Theodore Roosevelt High School will open early in the year and the DeWitt Clinton High School on or about November 1. The Far Rockaway High School will be opened toward the close of the year. Of the 29 elementary schools, fourteen are in Queens and eight are in Brooklyn Borough.

#### Chicago Will Spend \$20,000,000 For New Schools

-A school building program calling for the construction of 24 new schools, at a cost of \$20,000,000 during 1928 has been announced by J. Lewis Coath, president of the Chicago board of education. Construction work is scheduled to begin early in the spring and half of the buildings are expected to be completed for use in September, 1928.

The tentative program provides for eleven ele-mentary schools, six junior and three senior high schools, and four additions to present structures.

#### OPERATION AND MAINTENANCE OF THE DENVER SCHOOL PLANT

The school buildings of Denver, Colorado, are operated under a unit system of administration, in which the superintendent is the chief executive officer. He is responsible to the board of educa-tion not only for the educational administration but for the administration of finances and the operation and maintenance of the school plant.

All matters pertaining to the maintenance and operation of the school plant and the actual purchasing of supplies and equipment are under the direct supervision of the chief engineer, whose position might be more properly described as that of business manager. business manager.

The chief engineer (business manager) directs the work of the custodial staff of the buildings, and it is on his recommendation that members of this staff are employed. He has charge of all matters pertaining to the repair and maintenance of buildings, and is the purchasing agent of the district. The chief engineer is the expert adviser of the superintendent and the board of education on all matters pertaining to the heating, ventilation, and sanitation of all mechanical installations in school buildings. He is a member of the superintendent's staff, attends the superintendent's weekly administrative conference, and works in closest cooperation

with the educational administration.

The chief problem, aside from the work on new buildings, which the head of the department has faced in the past eight years has been that of rehabilitating and improving the older buildings. The majority of the buildings of the city have been in use over a period ranging from twenty to forty-five years. Many of the buildings were in no sense modern as regards arrangement, sanitation, heating, or ventilation, although in most instances good buildings for their day. In 1919 there were 22 buildings with outside, unheated, poorly lighted, antiquated toilets, but by the summer of 1923 most of these toilets had been eliminated, with only twelve still in use. At the same time, many of the toilets inside buildings were antiquated and objectionable from every standpoint. Since 1923, the last of the outside toilets has been eliminated, and the summer of 1927 witnessed the replacement of the last objectionable inside toilet room, with mod-ern fixtures and arrangements.

Many of the school buildings were equipped with antiquated heating plants, in some instances only with hot-air furnaces, and with no modern system of ventilation. High-pressure boilers were operated in all the larger buildings at much higher cost than necessary and at needless hazard to life and property. All of the latter plants have been changed to low-pressure ones, and the summer of 1927 witnessed the replacement of all hot-air furnaces and high-pressure boilers.

An extensive investigation was made to determine what type of drinking fountain is best, not only from a practical but a hygienic standpoint. A new and modern type of two-pupil drinking fountain has been installed in all buildings and the summer of 1927 witnessed the equipment of the last building with this type of fountain.

When he present business manager assumed direction of affairs in 1918 he found two buildings.

rection of affairs in 1918, he found two buildings which had been in service for nineteen years, the interiors of which had never been touched by a paint brush. For many years prior to 1919 there had been no systematic program of keeping the buildings in repair. A plan was inaugurated under which the exterior of buildings are painted once in every five years; the interiors are decorated once in every seven years. Portions of interiors that receive constant and unusual wear are repainted or refinished as needed, particularly in the summer vacations, when the custodians have the time to devote to this work.

In a similar manner, almost innumerable other repairs and alterations of buildings have been made to render them more comfortable or better adapted for school use. The program begun seven years ago of replacing antiquated and insanitary planships equipment and of converting the highplumbing equipment and of converting the high-pressure heating boilers has continued. In addi-tion, over \$213,000 have been spent from 1923 to 1926 for the repair and alteration of old buildings.

During the past eight years, and particularly in the last four years, a number of most important steps have been taken looking to the improvement of this service. In the first place, a wage scale has been adopted better calculated to attract and hold competent persons. The scale compares favorably with the wage paid for similar service by the best local corporations, although when compared with the wages paid in school systems in northern cities of the country, it is below the average. As the finances of the district permit, these wages are adjusted on a basis calculated to retain in service over a long period of years the most competent employees.

In the year 1926, the chief engineer inaugurated a series of monthly meetings of the custodial, op-

(Continued on Page 82)

# Vita Glass

# brings the vital health rays of the sunshine to the children in your schools

One of the most important things in the life of a growing child is an abundance of health-building sunshine. Scientists and medical authorities have proved that certain rays in the sunlight, the invisible ultra-violet rays\*, have definite tonic and curative properties. These are the rays that tan the skin. They build strong bones and sound teeth in children. They help prevent rickets. Yet the usual window pane shuts out these precious ultra-violet rays as effectively as a brick wall.

Three years of practical use has shown that Vita glass does transmit these valuable ultraviolet rays. A striking example of the value of Vita glass occurred in the Smethwick School test. Two groups of children in the same grade were placed in separate rooms. One room was equipped with Vita glass; the other had ordinary window panes. At the end of the school year, those children in the Vitaglazed room had grown approximately 50% more in height and weight than the other class. Absences had been reduced by 43%. Another test, conducted under the auspices of the American Medical Association, also showed that Vita glass transmits the vital ultra-violet rays of the sun in sufficient intensity to prevent rickets and to promote normal, healthy growth.

Prominent among the schools that have installed Vita glass are the Hill School located at Pottstown, Pa., and the Walnut Hill School in New Britain, Conn. It is reasonable to believe that the next generation will see every important school in this country equipped with window glass that transmits the priceless ultraviolet radiations in the sunlight.

Except for the word VITA etched in one corner, clear Vita glass is indistinguishable from the ordinary window glass. Cathedral Vita glass is translucent and is used for skylights, upper panes of windows, and so on. Both are supplied, cut to specification, ready to install.

\*We refer to those shorter ultra-violet rays between 2910 and 3200 Angstroem Units—recognized as the health-giving element in sunlight. The longer ultra-violet rays, sometimes called photographic ultra-violet, which are admitted to some extent by ordinary window glass, have little or no health value.

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# The **NORTON** Closer With Hold Open Arms Is Best Suited For Schoolhouse Work

#### Every Schoolroom Should Have One

1st. The doors are closed with a uniform speed, which gives the pupils a chance to go through a door without getting caught or injured.

**2nd.** Having two speeds, the speed at the latch can be set for absolute quiet—no latch necessary.

**3rd.** The Hold-Open Device connected with the arm of the Door Closer is automatic, a child can operate it—just a push or pull on the door is all there is to do it. Does away with door stop, hook, or strap to hold the door open.

SERVICE:-We have expert servicemen on call, free of charge.

PRICE:—The price is right. Send for a representative.

#### THE NORTON DOOR CLOSER CO.

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#### A Partial List of Schools NORTON Equipped

Skinner Junior High School, Denver, Colo.

North East High School, Minneapolis, Minn.

Chicago Public Schools

Toronto Public Schools

East Side High School, Cincinnati, Ohio.

Cass Technical High School, Detroit, Mich.

Technical High School, Omaha, Nebr.

(Continued from Page 80)

eration, and maintenance staff for the consideration of their own problems. At these meetings there are talks by members of the group and others on technical problems. Each member of the staff is free to ask questions, or to propose problems for discussion. The members have entered into the meetings with enthusiasm and the meetings have resulted in much good. The group has formed an organization of its own, called the association of Denver public-school custodians, with the superintendent as honorary president, the business manager as acting chairman, and a president elected from their own number to have charge of the social side of the activities. The superintendent has invited members of the group to attend the meeting of the teachers and principals held at the beginning of each school year. In other ways steps have been taken to cement more closely every division of the entire school staff. The cost of operating and maintaining the buildings per student is \$10.23, while the annual cost of heating for the year 1926 amounted to \$47,044.

BUILDING NEWS

—The school board at Hancock, Michigan, during the past summer completed the grading and sodding of the grounds surrounding the high-school building and the redecoration of the library and principal's offices.

principal's offices.

—North Providence, R. I. Ground was broken in August for the construction of two four-room additions to schools. A site has been obtained for

a new eight-room building.

—A report made to the school board of Evansville, Ind., is to the effect that the cost of repairing windows broken during the vacation months amounts to \$350. The local press holds that civic pride more than police protection will obviate vandalism.

—Rockland, Mass. The voters recently approved an appropriation of \$350,000 for the erection of a junior-senior high-school building. The building will accommodate 800 students and will be occu-

pied in 1928.

—Rochester, Minn. The new Central School was occupied on September 6. The building was erected at a cost of \$350,000 and is arranged to meet a number of needs not commonly found in school structures. One half of the building is devoted to high-school work. There are also a number of

rooms devoted to special classes for deaf and subnormal pupils.

-Mr. Clarence B. Cutler, consulting architect for the New York State Education Department, died on August 16, at the age of 74.

—The new high school at Port Richmond, Staten Island, New York, will be opened with the beginning of the new school term. The building is three stories high, is completely equipped, and will accommodate 1,158 students.

—Charlevoix, Mich. A grade school and gymnasium is in course of construction. The building will cost \$175,000 and will be occupied immediately after the holidays.

—Mankato, Minn. Work has begun on a new school-building program for the board of education. A ten-room grade school, with auditorium-gymnasium, has been started and will be completed in January. 1928.

January, 1928.

—New York, N. Y. Thirteen new school buildings, with sittings for 11,381 pupils, have been completed and opened for use with the beginning of the fall term, according to superintendent of school buildings William H. Gompert.

Of these structures, twelve are elementary schools with accommodations for 10,223 pupils. One new high school, the Port Richmond, in Staten Island, was used on the opening day.

Most of the relief afforded by the new schools was in Queens, where six elementary schools, with a total of 5,426 sittings were opened. In Brooklyn, three schools with 1,934 sittings were opened; in Manhattan, two schools were opened for the first time.

The board has awarded contracts for the construction of two further elementary-school buildings, at a total cost of \$1,305,400. The estimated cost of the two buildings, which are designed to seat 3,677 pupils, is \$1,821,500.

—Wilkinsburg, Pa. Two new schools, the Allison and the Turner, were occupied on September 6. Construction work has begun on a high school to cost \$650,000.

—A high-school building costing \$1,500,000 was dedicated at Greensburg, Pa., on May 24. State Supt. John A. Keith made the dedicatory address.

—A new high school to cost \$160,000 is being erected at Tamaqua, Pa.

—The school board of Shamokin, Pa., has purchased a six-acre tract for a junior high school and athletic field.

—A consolidated school will be erected at Cornwall, Lebanon county, Pa., at a cost of \$250,000.

—The board of education of Philadelphia opened nine new school buildings. One structure, the Simon Gratz senior high school, cost \$2,000,000. By this continued policy of constructing new schools, the board is gradually eliminating overcrowding as well as part-time sessions. The new schools, often established in growing communities, serve a valuable purpose in reducing the distance children must travel between classroom and home. Within the last three years the board, with these things in view, has spent \$25,000,000 in the erection of 43 new schools. Anticipating the future as well as the present demand for new schools, the board follows the policy of observing the trend of population in newer sections of the city and then purchasing school sites in advance of the actual development as residential districts. This, it is held, obviates the necessity of paying exorbitant prices or of purchasing already improved properties on which to construct new buildings. Preparations such as these are necessary in a city growing at the rate of from 30,000 to 40,000 a year, as is the case in Philadelphia.

—Over one-half million dollars will be spent on schools in San Luis Obispo, California, in the near future. Approximately \$300,000 will be spent for city schools and \$200,000 has been appropriated by the legislature for the California Polytechnic School

—Albion, Mich. An addition has just been completed for the local high school, at a cost of \$300,000. The construction work was carried out on a cost-plus basis, which resulted in a substantial saving to the board of education. The Warren-Holmes Powers Company, of Lansing, Michigan, were the architects.

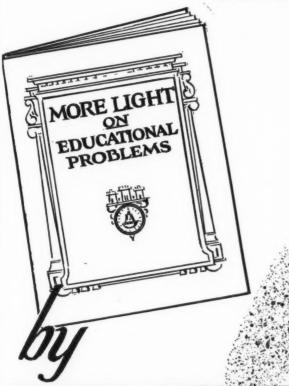
—Russellville, Ky. A large auditorium, the first unit of a new high-school plant, has been completed for the school system. The home-economics room was equipped by the parent-teacher association, at a cost of about \$300.

—A specially constructed automobile bus, a specially planned bungalow school, and other fea-(Continued on Page 85)

# Can you answer these questions

- I How can you be sure your lighting is not hurting the eyes of students?
- 2 How much light should there be on school desks, on blackboards, in halls, on stairways?
- 3 What is the best way to light the gymnasium, the auditorium, laboratory?
- 4 How can you get the most illumination from a given amount of current?

If you desire the most modern facts on these and other questions,



# Then send for this - New Book

"More Light on Educational Problems" is a non-technical volume dedicated to American school boards by the Holophane Company, recognized leaders in the science of lighting—especially in the school field. It is true that the volume explains why Holophane units are best for school use. But it is much more than an advertising book. A copy free if you write

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# HOLOPHANE



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Dignity, stability, superiority . . . these are immediately apparent where the beauty, grace and utility of marble is used to capitalize both distinction and economy in even modest interiors of commercial and public buildings.



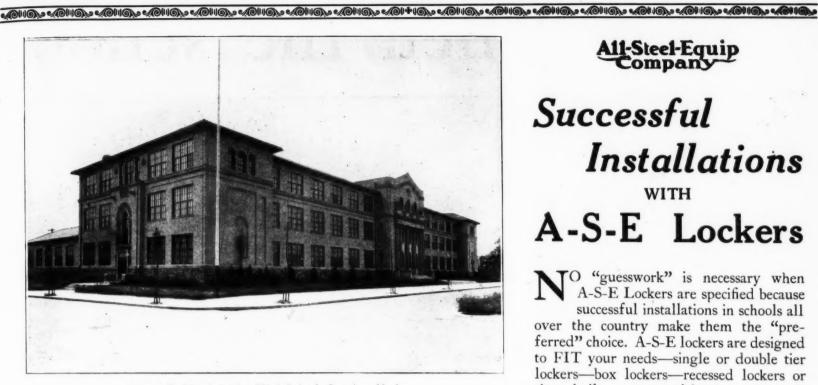
In civic, commercial or domestic structures, marble is an invariable expression of good taste. Its use implies sound judgment as well, for marble is so enduring, so inherently clean and so reasonable in price that it offers an actual economy as an interior finish.

> Send for the handsomely illustrated booklet shown on the left, "The Everyday Uses of Marble." Address Department J-10—it will be sent without cost, of course.

> > There is No Substitute for Marble

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### All-Steel-Equip Company

## Successful Installations

#### A-S-E Lockers

O "guesswork" is necessary when A-S-E Lockers are specified because successful installations in schools all over the country make them the "preferred" choice. A-S-E lockers are designed to FIT your needs-single or double tier lockers—box lockers—recessed lockers or those built on prepared bases—every type for each school's requirement!

You will find our engineering department ready to co-operate with you in solving your locker needs. Let them aid you.

> Catalog C-25 contains detailed Locker Information. May we send you a copy?

#### (Continued from Page 82)

tures, will accommodate the crippled chilaren who cannot go to the regular schools in Sacramento, There are about twenty such children. The new building will be occupied this fall, and the classroom will be large enough to accommodate comfortably the wheel chairs with their crippled

occupants.

—Rock Rapids, Iowa. More than \$50,000 has been invested in educational facilities in Lyon county, according to Miss Sue A. Kessler, county superintendent of schools. Six schools were erected during the past summer, five of which were rural schools. The Alvord School, in the town of Alvord, was erected at a cost of \$30,000.

-Chicago, Ill. Eight new school buildings were erected the past summer providing 6,194 additional sittings. In spite of the increase in new buildings, it is feared there will be a seat shortage of at least

A study of the growth in school population in the last five years has led school officials to expect an increase of 12,000 in elementary schools in 1927-28. Based on the figures compiled, the number of seats already provided will take care of only half the

-The Central High School at St. Louis, Mo., has been reopened after undergoing extensive repairs to remove fire hazards. The improvements were made at a cost of \$300,000.

Chicago, Ill. Plans for a new standard school building recently submitted to Mayor Thompson for approval have attracted considerable attention from architects and school authorities. All elementary buildings erected in the future will be three stories in height, surrounded by a playground. The roofs will be of concrete surrounded by an eight-foot wall to permit of open-air classes for anemic children. All buildings will have a new type of glass permitting the healthful rays of the sun to enter. There will be included also such items as gymnasiums, auditoriums, music rooms, and lunchrooms. Playgrounds for small children will be provided in the rear of the building. The schools will be known the Thompson type and will be erected at

—State Fire Marshal C. W. Nolte of West Virginia has called attention to the need of fire drills with the reopening of the schools this fall. Mr. Nolte believes a fire drill should have pre-

cedence in school activities in order to acquaint the newcomers with their surroundings and with the procedure in case of fire.

Reports received from inspections conducted during the past summer show that in general, school buildings of the state have been thoroughly inspected and repaired during the vacation period. A number of buildings, however, because of construction defects, cannot be made entirely safe without extensive alterations or rebuilding. In these schools

frequent fire drills are necessary.

—Lorain, Ohio. A school-building program involving several thousands of dollars has been postponed for one year in order to reduce the bonded indebtedness of the school system.

-Chicago, Ill. The board of education has added six new buildings to the proposed building program, at a cost of \$10,000,000, which will be added to the previous estimate of \$20,000,000. The increase in the appropriation was made at the request of Mayor Thompson and the entire program will be rushed to

A new elementary school completed at Chicago will be named the William J. Onahan School. Mr. Onahan was a former member of the board of edu-

-The new \$1,460,000 high school to be erected at Rockaway. New York, is expected to be completed for the fall term of 1928.

In California a new law goes into effect which provides that no schoolhouse is to be built hereafter outside of cities having their own building codes, without the approval of A. P. Hill, chief of the division of school planning. In commenting on the law the Stockton *Record* says: "In small towns in nearly every case these days the new schoolhouse is the handsomest building in the place and well deserves the adjective applied to it. School authorities and taxpayers will be glad to have the assurance of a practical expert that what they are planning to do will give the best service and architects will welcome the cooperation and advice of a qualified schoolman on interior arrangement. Where no architect is employed there will be the greater need of some one with authority to assist in making the little one- or two-room school as comfortable and convenient as it can be made."

-Oklahoma City, Oklahoma, is compelled to condust a continuous building program to meet the demands from a constantly increasing population of this fast-growing city. This year two eight-room units have been erected, one in the Gatewood and one in the Harmony districts. Each unit contains classrooms only, but the plan of the building includes provisions for an auditorium, community assembly room, or additional units, which may be added in the future without interfering with the original structure. The two units now under construction will be erected at a cost of \$200,000.

In addition to these units, the board is erecting a shop building for the Capitol Hill High School, to

During the past summer the grounds surrounding the schools in Oklahoma City have been regraded, resodded, and beautified. A total of \$7,000 was appropriated for the purpose.

-Baltimore, Md. During the school year 1926-27 ten building projects were completed at a total cost of \$3,000,000. Of these, the most important were the additions to the Southern Junior High School and the Canton platoon school, which cost \$500,000 respectively. Other projects are two high schools, one for boys and one for girls. These buildings are expected to be completed late in 1927 or early in

The voters of the city, on May 3, approved a bond issue of \$10,000,000 for the construction of new buildings. The bond issue was carried with a large majority and without the necessity of a preliminary selling campaign.

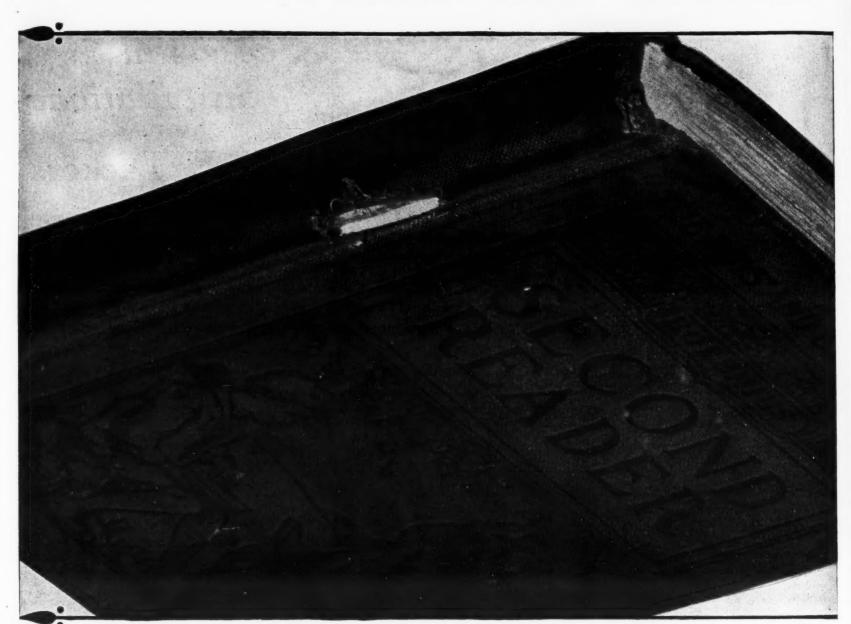
—The parish (county) of Lafayette, Louisiana, has completed a building program which adds new schools valued at \$410.000. In the near future \$350,000 more will be invested in new buildings. The parish now maintains seven senior high schools. teachers employed hold a two-year college

diploma. The schools are under the charge of J. W. Faulk, parish superintendent.

—Henderson, Ky. The city schools have undergone extensive changes during the last year. The cafeteria has been remodeled and some modern equipment installed.

-The school business department of Cincinnati. Ohio, under the direction of Mr. C. W. Handman, completed this year the largest summer-repair an remodeling program which it had ever had. size of the program required an increase in the force of carpenters from eight to forty; of painters from eight to sixty, and of laborers from four to ten. The regular force of electricians, tinners, and plumb-(Concluded on Page 88)

# When the school



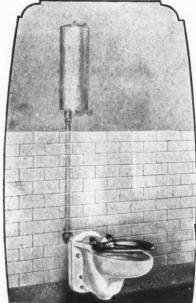
# Do children think of play

When boys forget meals — can they be expected to remember closet chains and levers?

And, an unflushed closet wreaks havoc. Colds, diseases—sometimes death—are often the direct result of contaminated, ill-smelling, unflushed closets.

The Clow Automatic watches over forgetful school children. Never failing, never forgetting—after every

occupation, the Clow Automatic flushes itself. Each time, a decisive



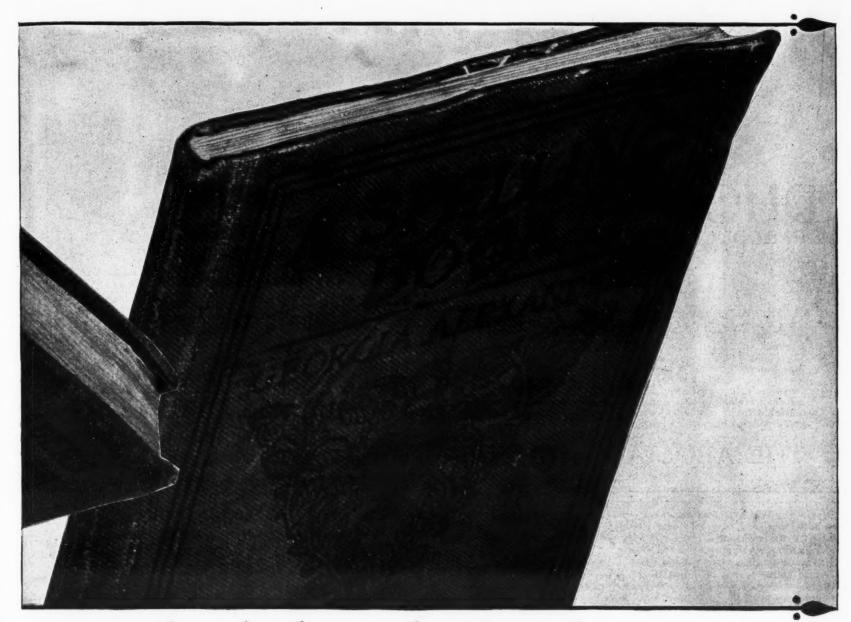
Closed top tank concealed in utility corridor. Reinforced, open front seat. Bowl securely hung.

 $1\frac{28}{100}$  cents per year! That's the repair bill per closet, on 22 Clow Automatics, installed ten years ago in a Carroll, Iowa, School. And what's more, these Clow Automatics will ask similarly small sum for the next ten years. Would you like to know how 3,000 Amermaintaining healthful toilet rooms? Would you like to lea more about school plumbing costs—and how to trim them to the bone? Send for our catalogue. It's worth a lot to everyone

interested in school, or industrial hygiene.

Forty-Eight Styles,

# books are closed-



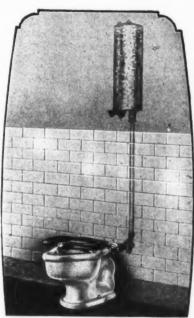
# -or school closet hygiene?

flush "scrubs" the bowl from top to trap. Clow Automatics are clean at the end of a busy day — as clean at the close of a busy quarter century. They can't forget. The Clow-Madden Valve is simple. It uses less water each flush—from three to seventeen gallons less than other closets.

Clow Automatics mean sure sanitation for the next quarter century. They age slowly with the building and their upkeep cost figures are as small as their age figures are large. James B. Clow & Sons, 201-299 N. Talman Ave., Chicago

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The Clow Automatic Closet. Closed top tank concealed in utility corridor. Securely hinged, reinforced open front seat. Heavy weight bowl.

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The Duo-Art in the John Burroughs School, St. Louis

MRS. AGNES MOORE FRYBERGER, Educational Director of the St. Louis Symphony Orchestra, and author of "Listening Lessons in Music" (Silver, Burdett & Company), has worked out a most interesting series of experiments in the John Burroughs School in St. Louis, which promises to bring out for the first time in children, a complete correlation of the arts of music, literature, and drawing. By means of her Duo-Art Piano and its remarkable library of artists's recordings she has been able to place before her children, not only the most interesting masterpieces of music literature, but also a performance of these works by the greatest living authorities in music.

Hearing these compositions, such as, for instance, the Beethoven Minuet in G, in their pristine glory of actual piano tone, the children have reacted both through their art and literary senses so that most remarkable poems and most beautiful drawings, representing musical masterpieces, have, under the stimulation of the music, come from what was thought to be otherwise untalented youngsters

Any parent or teacher who wishes to duplicate these experiments in whole or part for the benefit of her children, should write direct to the Educational Department of The Aeolian Company for information.

#### THE AEOLIAN COMPANY

Educational Department AEOLIAN HALL

**NEW YORK** 

(Concluded from Page 85)

ers have been kept busy repairing electrical and plumbing equipment, roofs, and other equipment. Painting was done at practically every school.

The repairs in numerous buildings included such items as fitting new shades, installing lunchroom steam tables, repairing sidewalks, resurfacing roofs and playgrounds, laying new floors, installing lockers, erecting motion-picture booths, covering and repairing books, and purchase and storing of 18,000 tons of coal.

-Hampton, Iowa. The school board completed extensive repairs to the school buildings during the summer months. All buildings were painted outside. A fence was erected around one building to protect the pupils from heavy highway traffic.

—Allentown, Pa., is congratulating itself upon the fact that at least every school child enjoys a seat. The Allentown News in commenting upon the situation says: "The congratulations were well placed inasmuch as a feat entirely unexpected was performed because of excellent administration of the people's money. That feat was the construction of eleven school buildings whereas seven years ago when the \$3,000,000 bond issue was floated the

when the \$3,000,000 bond issue was floated the people expected to secure but seven or nine buildings at the best."

—The New York City board of education has adopted a complete school budget for the year 1928, calling for a total expenditure of \$161,-101,809, the largest budget ever adopted for educational purposes. The amount includes the \$14.000,000 increase in teachers' salaries made possible by the state aid grant, as well as \$35,000,000 to be used in carrying out the building program for the next school year.

The regular budget is \$111,748,077 for the school

The regular budget is \$111,748,077 for the school year 1928. This is an increase of \$4,228,677 over last year's estimate of expenditures and covers many small increases caused by the increasing cost

of school supplies.

The total required for the maintenance of the public schools is \$93,915,607 for the general fund; \$17,832,469 for the special fund, and \$353,732 for the trust fund for the board's retirement system.

The board will ask the city to appropriate \$35,-000,000 for the acquisition of sites and the enlarge ment and construction of school buildings. It will also spend \$353,732 of the trust fund of the board's retirement system.

#### AN INVESTIGATION OF SCHOOL FINANCES

Preparations for a state-wide investigation of school finances in New York and other large cities of the state were made at a conference held in Albany and headed by Senator S. C. Mastick and the school-tax committee of the state conference of mayors.

It appears that the steadily growing school budgets of such cities as New York, Buffalo, and Rochester, have created a problem which is embarrassing several of these cities financially. The legislature attempted to give some relief last session through increased state allotments of funds, but several of the large cities and many smaller ones are still in need of further relief.

One of the important matters to be taken up is

One of the important matters to be taken up is the use of authority by the commissioner of education. It is charged that the commissioner has exceeded his legal authority in forcing his will upon localities and threatening to withhold state money.

It has been decided to hold hearings immediately after election in New York City, Albany, Syracuse and Buffalo. Questionaries have been distributed and those invited to appear will be asked to dis-cuss fully the problems stated on the sheet.

#### WISCONSIN STATE SCHOOLS COST 63 MILLION YEARLY

The Wisconsin department of education has compiled figures showing that it costs more than \$170,000 a day, or \$63,000,000 a year to maintain the state's school system. The public-school system costs \$50,647,237 a year, and the university is next with an outlay of from \$6,000,000 to \$7,000,000 a year. 000,000 a year.

The report shows that the conduct of city schools, not counting the university normal schools, or other of higher learning, requires between institutions 7,000 and 8,000 teachers, while between 8,000 and 9.000 teachers are employed in the rural and state graded schools, and 3,000 teachers in the village

There are 153,000 pupils enrolled in 6,669 one-room schoolhouses in the state. The cities in Wisconsin have 81 high schools,

while the villages have 68, not counting institutions where high school and grades are housed in one building. Of the latter class, the villages have building. Of the latt 240, and the cities 63.

#### ILLINOIS ADOPTS NEW METHOD OF DISTRIBUTING STATE SCHOOL FUND

A new method of distributing the state school fund of Illinois has been adopted as a result of the passage of a new law by the last legislature. It is believed that the new method will make it possible to accomplish much more in the way of securing equality of educational opportunity than the methods previously employed.

The law provides that every school district in the state maintaining school as required may make a claim against the state school fund for \$9 per child in average daily attendance, actual or allotted, in grades one to eight inclusive. It further pre-

in grades one to eight inclusive. It further prevides that in the case of districts with a low valuation levying at least a maximum rate for educational purposes (one per cent on full valuation), they may make an additional claim as follows:

1. Multiply \$25 by the number of pupils in average daily attendance, actual or allotted.
2. Multiply \$850 by the number of full-time elementary teachers employed.

3. Where the greater of these two products exceeds the levy of one per cent on the full valuation, an excess may be claimed as special aid.

Since the law first becomes effective in July,

1928, the apportionments in January, 1929, will be based on reports of claims for state aid made by the state superintendent in the fall of 1928. The following data must be submitted to the clerk or secretary at the time the report of claims is made:

The equalized assessed value of the district.

The number of full-time teachers for grades one to eight inclusive employed for the major por-

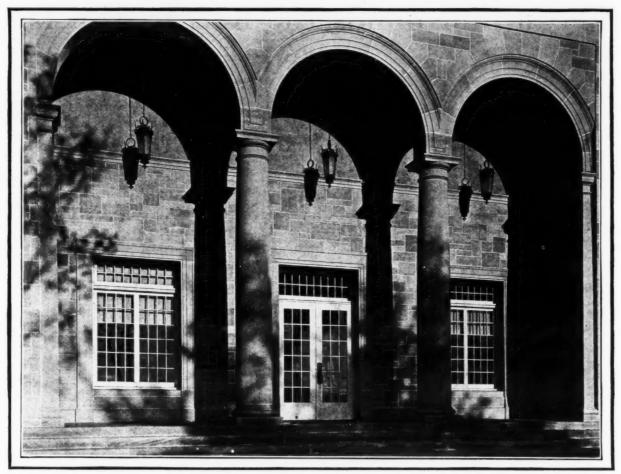
3. The total tax rate of levy, the building tax rate of levy, and the educational tax rate of levy fixed by the county clerk.

4. Number of days school was actually in session.

5. Total days of attendance of pupils in grades one to eight, inclusive.

(Continued on Page 90)

#### The NATION'S BUILDING STONE



Mulvane Art Museum, Washburn College, Topeka, Kansas. Built of Variegated Indiana Limestone Random Ashlar, from the quarries of the Indiana Limestone Company. Thos. W. Williamson & Co., Architects.

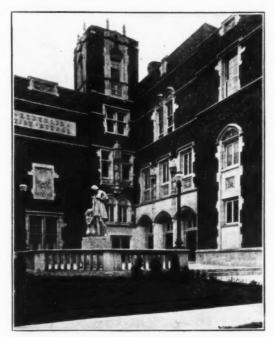
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# That cannot be criticized as "costly"

THE architect asks for no finer building material than Indiana Limestone. Whether he gets his effects by using it as trim in connection with brick field-work or by using it also as Ashlar for facing of walls, the result is permanent attractiveness at moderate cost.

Indiana Limestone is so highly regarded by architects that a majority of the finest public buildings and memorials, churches and collegiate buildings in this country are built of this fine light-colored natural stone.

New ways of producing and using Indiana Limestone have so reduced its cost that all-stone-faced structures are not prohibitively expensive. Such buildings remain beautiful year after year without expensive cleaning or costly exterior repairs. This factor of low up-



Alvernia High School, Byron and Ridgway Avenues, Chicago. Brust & Phillip, Architects.

keep is one which should be considered in connection with all civic buildings.

Because of the genuine economy of an all-stone facing of Indiana Limestone, many of the newer high schools, like college buildings the country over, are being built with walls faced entirely with this beautiful stone. As the real facts about the cost and economy of an all-stone facing become known, we believe there will be more of these all-stone buildings.

Booklet on school and college buildings

A handsomely illustrated booklet, "Indiana Limestone for School and College Buildings," shows fine examples of school and college buildings built of Indiana Limestone in all parts of the country. Write for a copy today. Address Box 780, Service Bureau, Indiana Limestone Company, Bedford, Indiana.



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ORE distressing than the loss of your injured workman's services—worse even than the thought of the victim's sufferingis the effect on those impressionable young minds of a ladder mishap in your school!

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### AYTO Safety Ladder

THE DAYTON SAFETY LADDER COMPANY 121-123 W. Third St. Cincinnati, Ohio.

(Continued from Page 88)

6. Actual number of pupils (grades one to eight) in average daily attendance during the

school year. Under the operation of the new method of distribution, county superintendents may not withtribution, county superintendents may not withhold the funds of districts which have not complied with the requirements of the law on sanitation and safety but must notify the trustees before their April meeting in 1929 what districts have not complied. It will be the duty of the school treasurers to withhold the portions of the fund due such districts until they have had notice from the county. tricts until they have had notice from the county superintendent that they have complied with the requirements. All money withheld by the county superintendents from districts failing to comply with the law, and all that may be accumulated at the time of distribution in the spring of 1928 will be held and administered until July, 1928, as provided in the budget law. At the following October vided in the budget law. At the following October meeting of the trustees, the county superintendents must send all money withheld by them to the trustees with instructions to hold the amounts until

advised to release them.

Important School Bond Sales of the Past Month California—Los Angeles Co., Calif., Glendale Union High School District..... \$1,400,000

California-Los Angeles Co., Calif., Monrovia City High School District. 625,000

Maryland—Allegheny Co., School, E. F. Webb, Supt., Cumberland, Md.......
Massachusetts—Natick, Mass., School... 250,000 270,000 Mississippi-Natchez, Miss., High School

Building 250,000 New York—Hempstead, N. Y., Union Free School District, No. 21...... 21,475,000 New York-New York, N. Y., School

Construction purposes 4,100,000 Pennsylvania-Shenandoah, Pa., School 250,000

District
Tennessee—Shelby Co., School, Miss Sue
Powers, Supt., Memphis, Tenn.....
FINANCE AND TAXATION 500,000

—New York City expended \$133.890.175 for public education in 1926, according to the financial statement made public by Comptroller Charles W. Berry. The money spent for educational purposes including appropriations granted to the board of education, City College, and Hunter College, totaled \$11.942.043, and the grant for libraries amounted

In addition, the city's outlay for school construction and equipment amounted to \$19,393,865.

—Wisconsin's new taxation law calls for an assessment of 1.1 mill tax to replace the .7 mill tax in effect heretofore. It will increase the state school fund by over \$2,000,000. The new law will be a great aid to the poorer districts in the north-

ern counties of the state.

Milwaukee county, under the new tax, will pay \$535,238 more next year than it paid under the old law, and the county will get \$167,766 less than it received as state aid under the old tax rate. The city of Milwaukee will pay \$324,204 more than under the old law, and will get \$190,329 less than

it got heretofore.

For years the city has been getting more from the state school fund than it paid in taxes. Under the old law it paid \$567,356 in the mill tax and got \$650,607 in return. Next year the city will pay about \$891,560 but will get back \$460,278.

Milwaukee county has been paying \$936,666, and has been receiving \$798,316. Next year the county will pay \$1.471,904 and will get back \$630,550.

will pay \$1,471,904 and will get back \$630,550.

—The Hackensack, N. J., board of education annually employs a certified public accountant to audit the accounts and records of the school system. The cost for such an audit usually runs about \$450.

—The Erie, Pa., school board has a fund of \$400,000. Deposits in the several banks of the city

are drawing four per cent interest.

—Rock Island, Ill. The school board has expended \$10,209 for supplies, repairs, and equipment for school buildings. The largest item on the exfor school buildings. The largest item on the expenditures list was for the rewiring of the high school, which was completed at a cost of \$3,778.

—The school board of Pine Bluff, Arkansas, has endeavored to pay off its floating indebtedness through the floating of a bond issue of \$128,500. The bonds will extend over a period of twenty years and will bear five per cent interest. The floating of the bond issue will enable the school board to retire its current warrants and allow time in which to repay the money to the bond buyers. The action irect result of an increase in the sch from twelve to sixteen mills, which means an additional \$52,000 for school purposes.

-Earlville, Ill. The school board has adopted a high-school tax levy of \$23,500, which is \$375 more than last year. The grade-school levy of \$11,500 was retained for this year.

-Nebraska City, Nebr. The school board has readopted the tax levy of 131/2 mills for the present Of the total, 111/2 mills will be used for general school purposes, while two mills will be used for paying interest and retiring bonds.

A school budget of \$81,970 has been adopted, which is \$2,100 more than was appropriated for

-New York, N. Y. A final school budget of \$161,000,000 has been adopted for the coming year by the board of education. The budget represents an increase of \$38,000,000 over last year and makes provision for the completion and occupation of eleven new elementary schools, with a total of 8,639 The budget includes provision for \$35,-000,000 for speeding up the school-building program, or \$10,000,000 more than was appropriated last year. The largest increases in the budget estimate are for instruction, fuel, repairs, and fire prevention.

-Mr. Arthur S. Somers, chairman of the finance committee of the New York City board of educa-tion, has estimated that the state aid for the city schools will exceed by \$16,000,000 the allowance for 1928. Of this excess, \$14,000,000 has been set aside for the increase in teachers' salaries. The state allowance for 1927 was nearly \$29,000,000, while the estimate for next year's budget is over \$40,-

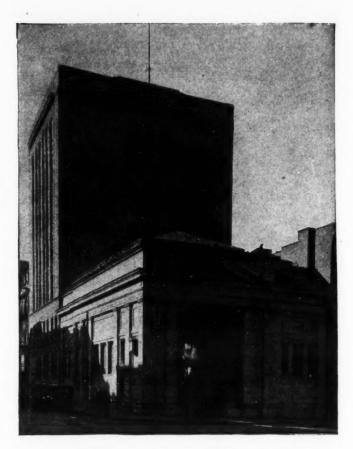
The apportionment of state school moneys in New York is based on average daily attendance, which fluctuates with conditions of weather, with the general health of the community, with the days upon which religious holidays fall, and similar factors. These conditions, Mr. Somers points out, prevent any accurate estimate of average daily attendance.

-It is estimated that funds are available for the operation of the nine normal schools and nineteen state institutions of Wisconsin, despite the veto of the large appropriation measures by Governor It appears that the governor vetoed the normal-school appropriation measures because \$1,000,000 in the building program had been added on the floor of the legislature.

-Kenton, Ohio. The Meeker Consolidated School will be obliged to close after January 1, 1928, due to a lack of funds to cover expenses. Efforts to obtain funds by private subscriptions failed be-

(Concluded on Page 92)

Security Trust Company Rochester, N. Y. Architects: Gordon & Kaelber Par-Lock applied by The Western New York Par-Lock Appliers, Inc.



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CLEVELAND, 404 Hunkin-Conkey Bldg. COLUMBUS, 751 South Cassingham Rd.

DETROIT, 2511 First National Bidg.

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# Invincible Vacuum Cleaner Mfg. Co. Dover, Ohio, U.S.A.

(Concluded from Page 90)

cause the contributions were not sufficiently liberal to make up the deficit.

to make up the deficit.
—Anacortes, Wash. The school budget for the coming year aggregates \$114,639, exclusive of bond interest and redemption levies, which will add another \$10,000 to the estimates.

—Prescott, Ariz. A bond issue of \$200,000 for a high school and proposed improvements was defeated at a recent bond election. The failure of the bond issue leaves the schools in a congested condition.

—Victorville, Calif. The voters have approved a special tax to raise \$5,000 for maintaining the Victor elementary school district.

Victor elementary school district.

—Topeka, Kans. The school board has ordered an increase of one mill over the present 12.5-mill levy for school purposes.

levy for school purposes.

—Wheeling, W. Va. The school board has reduced the school tax levy from 99 cents to 93 cents.

The levy will produce a school fund of \$800,350.

—Lynchburg, Va. The school board has asked that the city appropriate \$4,000 to pay the cost of educating public-school children who live outside the city limits. It is estimated that each of the 450 such children will cost the board \$40 a year. In the annexation of property in 1926, the city agreed to educate for a period of five years all children in the county who lived within a mile of the city limits.

—Helena, Mont. The school board has reduced the school levy from 221/4 to 201/4 mills.

—Arcola, Ill. The school board has planned to

—Arcola, Ill. The school board has planned to reduce school operating expenses by \$8,000 for the next school year.

next school year.

—Alton, Ill. Supt. Curtis, in his annual report to the board, calls attention to a financial problem caused by a growing school population and a decreasing tax revenue. He shows that for the last three years the tax levy has remained stationary. While the district could formerly raise \$72 per pupil, it now can raise only \$69 per pupil, which represents a loss of \$3 per pupil in taxing power, or a total of \$17,448. The board must find a method of increasing the school revenue in order that the school costs may keep up with the growth in population.

—Detroit, Mich. Mayor Smith has charged the board of education with responsibility for increases in taxation for the past few years. He asked that the board curtail all but the most necessary expenditures. One of the matters of controversy has been the proposed erection of a teachers' college in the face of congested classes and half-day sessions for pupils in the grades. The board has referred the teachers'-college matter to a special committee, which is a technical victory for the mayor.

—Cranston, R. I. The budget of the school board has been fixed at \$460.750, which is \$53.947 more than last year. Part of the increase is due to the adoption of a new plan of paying teachers when absent because of illness, which it is estimated will cost the schools \$3.000.

—Omaha, Nebr. The annual report of Miss Mary Bird, secretary of the board, shows that the schools were operated last year with a saving of \$148,460. The payment of a short-term loan and the elimination of a financial deficit called for an expenditure amounting to \$1,500,000. The saving in school funds was effected by reducing teaching staffs and combining classes.

—Marysville, Kans. The school board has adopted a tax levy of 12.75 mills, which will produce a school fund amounting to \$52,609.

—San Francisco, Calif. A controversy has arisen between the city authorities and the board of education over a demand for an increase in school taxes. The school authorities have asked \$1,200,000 more than the city authorities are willing to grant for the 1927-28 budget. The increase in funds would mean an increase of two cents in the tax rate which it was planned to reduce this year.

—Hamden, Conn. The school board has adopted a budget of \$393,000 for the school year 1927-28. The outstanding increases in the budget are \$13,000 for salaries and \$11,000 for high school tuition.

—Springfield, Ohio. The school board has adopted a budget totalling \$1,123,000 for the school year 1928.

—Kansas City, Kansas. A tax rate of \$1.60 on the assessed valuation has been adopted by the school board for the year 1927-28. The tax fund, together with the sixteen-mill levy will produce a school fund of \$2.280,212.

Under the building fund three projects are provided for: \$125,000 to be paid for a high-school site; \$10,000 for equipment in the new Central

junior high school, and \$8,508 for the completion of the Chelsea school auditorium.

—Ponca City, Okla. The school board has adopted a budget of \$375,000 for the new school year. An appropriation of \$47,500 has been made for new school buildings during the year.

—Cleveland, Tenn. The county board of education of Bradley county has paid off the last of the indebtedness against the common school fund, amounting to \$5,000. There still remains a debt of \$2,500 against the high-school fund. The county originally had an indebtedness of \$114,000 which had accumulated from year to year. The board started eight years ago to gradually reduce the debt by paying a definite amount each year.

—Cleveland, Ohio. The school board has been attacked for extravagant expenditures in a bulletin issued by the Association for Retrenchment in Public Expenditures. The bulletin contained figures showing that from 1900 to 1926 the school expenditures have increased 1308 per cent, while the population has increased only 151 per cent.

The 1927 budget and additional tax of two-tenths mill, have brought the school expenses to \$20,-265,969.

—Indianapolis, Ind. The school board has proposed a tax levy of \$1.45 for the year 1928, which is 45 cents more than for the last year.

—Dayton, Ohio. The school board has adopted a budget of \$3,815,675, which is an increase of more than \$200,000 over last year. The increase is due to new buildings and to large expenditures for janitors, coal, light, fuel, and other items.

—Jacksonville, Fla. The school board has asked for an increase in the school millage from six to eight mills in order to relieve the financial situation in the schools. It is pointed out that unless the increase is granted, the elementary schools will be forced to close a month or two earlier than last year.

It has been shown that during the last five years enrollment in the schools has increased fifty per cent, while the county tax assessments have increased only nineteen per cent. Nearly all the revenue of the schools comes from the direct property tax.

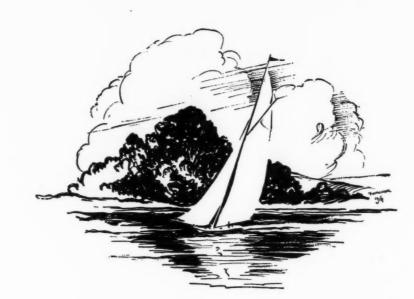
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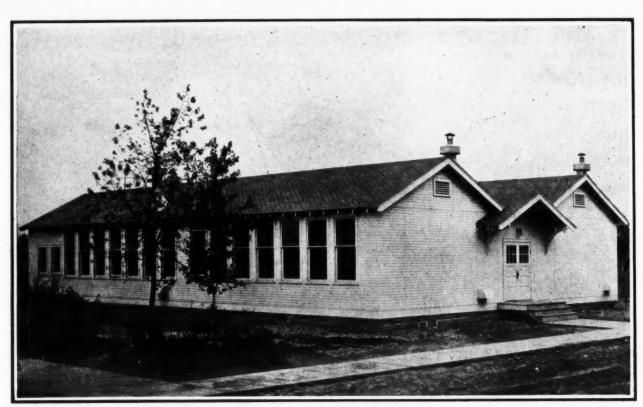
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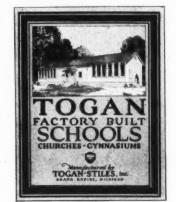
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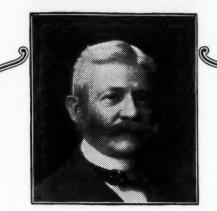
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THE CINCINNATI SALARY SCHEDULE

—The school board of Cincinnati, Ohio, has

adopted a new salary schedule which divides teachers into four groups according to preparation for teaching. Teachers are grouped on the following

basis:
Group one: Those who have had two years of normal-school preparation. These will receive a minimum salary of \$1,400, and annual increments of \$100, up to a maximum of \$2,000.
Group two: Those who have had three years of normal-school preparation. These will receive a minimum of \$1,500, and annual increments of \$125, up to a maximum of \$2,500.
Group three: Those who are college graduates.

Group three: Those who are college graduates. These will receive a minimum salary of \$1,600, and annual increments of \$150, up to a maximum of

Group four: Those who have the equivalent of a year of professional preparation in addition to four years of college credits, and who have served at least a year at the maximum of group three. These teachers will receive a minimum of \$3,400 and a

maximum of \$3,500.

The schedule makes no distinction in standard qualifications between elementary and high schools. It is recognized that specialized preparation and high qualifications are as necessary for adequate teaching in the primary grades as in any period of

Any teacher entering the system can by interest, effort, and ability, advance through the higher groups to the maximum. It is felt that within a few years all teachers in the Cincinnati schools will

be college graduates, or their equivalents.

In order to do justice to the older teachers in the school system, it has been decided to give full credit for original preparation and study of a college grade taken since the teacher began to teach. In addition, a "service credit" equal to two units of professional preparation for each year of teaching service, since the tenth year, up to a maximum of thirty credits. This is the equivalent of a full year of college preparation, for those who have taught for 25 years. It enables the older teachers

lege graduates, while the maximums established for those now in service, who are not college graduates, graded according to the years they have taught, will offer an opportunity to advance to within a single increase of the maximum fixed for college graduates. The maximum for male classroom teachers has

been fixed at \$3,500 in order to attract and retain a proper proportion of such teachers in the school system.

#### KALAMAZOO SINGLE-SALARY SCHEDULE

The school board of Kalamazoo, Mich., has adopted a single-salary schedule for teachers, which divides teachers into six groups and which applies alike to all departments of the schools.

Under the schedule, the minimum salary for the the the schedule, the minimum salary for the state life certificate (two years) or the equivalent, and one year of experience, will be \$1,200; for the A.B. degree (four years) or equivalent, and one year of experience, \$1,440; for the M.A. or equivalent degree and one year of experience, \$1,560. In the case of teachers with more than one year of experience, all experience, all experience, all experiences all experiences are additional. successful experience elsewhere, each additional year of experience, not to exceed six, will count as a credit of \$60 toward estimating the initial salary in the Kalamazoo schools.

The annual increments of teachers, under the schedule are determined by merit rating; for the rating C (good), the increment is \$60; for B (superior), the rating is \$90; and for A (very

(superior), the rating is \$90; and for A (very superior), the rating is \$120.

Any teacher who is granted a leave of absence for one year for advanced study in normal school, college, or university, will receive an increase of \$120 on return, in addition to the merit increment earned. The maximum for each merit classification is determined by six annual increments. In other words, the maximum on the life certificate basis words, the maximum on the life-certificate basis, for the merit class C is \$1,560; for B, \$1,740; for A, \$1,920; for the A.B. degree C, \$1,800; for B, \$1,980; for A, \$2,160; for the M.A. degree C, \$1,920; for B, \$2,100; for A, \$2,280.

Under the schedule the salaries of men teachers run higher due to the approved policy of starting

run higher due to the approved policy of starting men at a minimum of \$150 higher than the minimum \$300 higher than the maximum for the remaining teachers.

Where a teacher has served long enough so that her salary by the merit increments has reached the maximum for her classification, the new salary

will be the maximum of the merit classification for the degree she has attained, as provided in the schedule.

Where a teacher whose salary has been based on the life certificate secures the A. B. degree or equivalent degree before the opening of schools in September of any school year, the salary may be adjusted to the degree basis on the basis of the minimum salary for the particular group, the allowance for additional experience outside the system, and the sum for the annual increments the teacher has received in the system under the provisions in the

The school board reserves the right to make some modifications in certain cases where the circumstances demand. For example, the board will recognize extra preparation, evaluation of general experience in terms of teaching experience, the question of supply and demand, determination of salaries not affected by the schedule, and emergency situations.

#### TEACHERS' SALARY SCHEDULE AT HAZARD, KY.

The school board of Hazard, Kentucky, adopted a salary schedule for teachers, which is divided into four classes based on preparation and teaching experience. Under the schedule, teachers are divided into Class A, teachers with two years' preparation beyond the high school; Class B, teachers with three years' preparation beyond high school; Class C, teachers with four years' training above the high school, and Class D, teachers with five years' training above the high school.

Teachers in Class A will be paid \$810 the first year, \$855 the second year, \$900 the third year, \$945 the fourth year, \$990 the fifth year, and \$1,035

the sixth year.

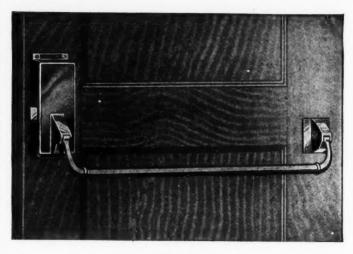
Teachers in Class B will be paid \$900 the first year, \$945 the second year, \$990 the third year, \$1,035 the fourth year, \$1,080 the fifth year, \$1,125 the sixth year, and \$1,170 the seventh year.

Teachers in Class C will be paid \$1,125 the first year, \$1,170 the second year, \$1,215 the third year, \$1,260 the fourth year, \$1,305 the fifth year, \$1,350 the sixth year, \$1,395 the seventh year, \$1,440 the eighth year, \$1,485 the ninth year, and \$1,530 the

Teachers in Class D will be paid \$1,260 the first year, \$1,305 the second year, \$1,350 the third year, \$1,395 the fourth year, \$1,440 the fifth year, \$1,485 the sixth year, \$1,530 the seventh year, \$1,575 the

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year, \$1,710 the eleventh year, and \$1,755 the

Under the schedule, it is required that entering teachers shall have two years of experience before they will be appointed as teachers. Where the preparatory work has been taken in a standard normal school or college, offering the required practice teaching and allied subjects, credit of one year's experience will be allowed. Credit for experience in schools of equal rank will be granted year for year up to three years.

A bonus of \$2 per semester will be given teach-

A bonus of \$2 per semester will be given teachers for work done in education or in some special subject during the summer session. The work must be approved by the superintendent. The bonus will be added to the salary of the teacher for the fourth school month. The salary of any teacher may not be increased more than \$10 per month during the current year.

—Held in abeyance since 1920 when a slump in the treasury prevented increases in salaries, the Butte, Mont., board of education has once more taken the question under consideration. The matter was presented by trustee J. C. Wallace, who introduced a lengthy table prepared in detail relative to the salary adjustment. "Our present payroll is approximately \$50,000 a month and this salary raise will add about \$37,000 a year," he said. "In 1920, the board technically agreed on this salary matter but financial difficulties presented a bar." In effect, the resolution provides that after the first year during which the teacher's salary is at the minimum rate of \$140 a month, salaries will be raised \$10 a month each succeeding year, until a maximum salary of \$2,000 a year will be paid graded teachers.

—With three new cases of infantile paralysis reported early in September the Haverhill, Mass., board of education has ordered the schools closed for a month, cancelled football games, and barred minors from public gatherings. The school authorities of Wisconsin are apprised of the fact that fourteen cases of infantile paralysis have broken out in the state, and that new cases are reported in Massachusetts, Ohio, and California. It extends the caution that "Any child suspected of having infantile paralysis be isolated and kept away from others until it is determined whether or not the disease is present. This may save some persons from contact with mild cases and tend to diminish the spread of the disease."

# NEWS OF THE SCHOOL BOARDS

SCHOOL BOARDS MADE THROUGH PARTY METHODS

An interesting sidelight on creating school boards through the means of party organizations is provided by the Springfield (Missouri) *Leader*, as follows:

as follows:

"Often there is considerable manipulation in the selection of a school board. This starts in bringing out candidates for city members of the democratic and republican county committees. The membership of the committees is vital because the committees under the present system nominate candidates for the school hoard.

the school board.

"As much as possible the two committees are wanted to be in harmony as one committee might reject the nominees of the other committee. There has been friction of the kind in the past. The democratic committee might declare it was willing to endorse two republicans but not the two republicans nominated by the republican committee. Here is a chance for confusion and a defeat of

"There was once a secretary of the school board who gave special attention to the selection of committees, not that he was looking out for any political party, but for himself. He wanted friends to be on the committees who would nominate other friends of his for the school board and make his job secure. He held his place for many years, but his plans and those of the superintendent finally collided and there was friction. This resulted in both losing their places. There was no party politics in the matter; it was just a case of looking out for one's interests. It might be called school politics

"After the candidates for committeemen file for office their names go on the primary ticket and they must be elected at the polls by popular vote. Here is a check which can be used by the people. If undesirable men are being elected on the committee them is a possible property of the people.

mittees there is an easy remedy within reach.

"After the committeemen are elected and candidates for the school board are nominated they must be elected by the people at the polls. The voters eighth year, \$1,620 the ninth year, \$1,665 the tenth

are not required to endorse the joint action of the committees and independents may run. Sometimes the regular nominee for the school board is defeated. A prominent republican will recall he was defeated at the polls, although he was put forward by the republican committee.

"As a rule, however, independent movements have

"As a rule, however, independent movements have been defeated and by a decisive vote. Generally the men nominated by the committees have been good citizens and average up with the general run. No doubt that is why they are elected rather than because they carry the committee endorsement. The committee endorsement is a detriment in the eyes of no small number and does not necessarily insure success at the polls.

"There are any number of prominent citizens in Springfield who could not be elected on the school board even if unanimously endorsed by both committees. The committees cannot elect just anyone and moreover just anyone can't be nominated by the committees.

"If the present system is wrong and it is the belief of the people that no good candidate can come out of the committees the remedy is still here and under a very simple one—just nominate an independent ticket and elect it.

"In the past the same charge has been made against the independent ticket as against the regular ticket—that it was brought out by a clique with an axe to grind and the clique couldn't control the committees.

the committees.

"The whole thing is in the hands of the people. The first thing to be done is to watch candidates for the committees and elect proper persons. Then if the nominations are not satisfactory vote for independent candidates. If the regular nominees are generally obnoxious there is certain to be an independent ticket. If the independent ticket is smothered, as it has been in the past, it must be accepted that the committees' work was not so unsatisfactory after all. Where the majority rules an election is the final test and its verdict must be accepted.

"However, it is plain that people have the power in their hands to run the school board if they want to and the committees fail to endorse the popular will. Indeed, it is held by many the committees are doing their duty openly and fairly and they point to a long list of popular approvals at the polls to substantiate the contention."

(Concluded on Page 98)

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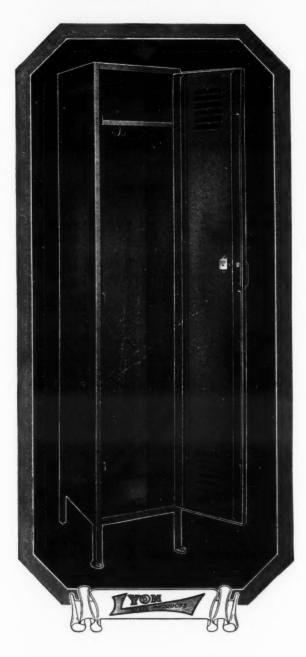
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#### AMONG BOARDS OF EDUCATION

—At Reading, Pa., a contractor named Andrew J. Fink who has criticized the local school board severely on its building operations, is a candidate for membership on that body. He recently in-spected the new high-school building and then decided to become a candidate.

—A newspaper at Cicero, Ill., recently described the members of the local board of education. In speaking of Frank J. Petru, the president, the editor said that "he makes one of the most efficient chairmen imaginable. He has a sureness of speech, and mastery of detail which fits him for the post. He possesses that elusive quality, inadequately summed up in the word 'personality,' which is more than mere personality. It is something big men have at birth, and develop as they mature. It is a mastery of men, an ability to intelligently direct problems and is based on knowledge of people and policies, and is based on knowledge of people, and love of work on their behalf."
—Supt. Clifford J. Scott of East Orange, N. J.,

during an address before the local Kiwanis club, called upon the members to name the members of the school board. "I am disappointed," said he, when none came forward. "I cannot too strongly urge you as Kiwanians to show an interest in this important matter. Learn the names of those on your board. Seek them out and take occasion to thank them. They may drop dead, but I believe it is worth the risk."

-The statement has been made in some of the newspapers of Michigan that school boards fail to give sufficient publicity to their operations. When give sufficient publicity to their operations.

give sufficient publicity to their operations. When one of the school boards reluctantly complied with the law to do so, the local newspaper said:

"All of which goes to show that while school boards are sometimes perfectly willing to disobey the law and keep their financial maneuvers hidden from the public, they squirm like an angleworm when the spotlight of publicity is flashed on them. The taxpayers have an undoubted right to knowledge of who gets their money and what he does to earn it, and it always has a suspicious look when school board refuses to make the information

-Lebanon, Mo. The tuition rate for nonresident students in the high school has been raised from \$4 to \$4.50 per month.

-In compliance with a state law, the board of education of Glendale, California, has taken over the business administration of the cafeterias in the elementary and intermediate schools. Mrs. Ethel Baker, who has been in direct charge of the cafeterias, has been reemployed for the ensuing school

-The school board of Great Falls, Mont., has discontinued tuition fees for nonresident students. The action was taken because of difficulty in establishing a method for determining who should pay the fees.

New York, N. Y. Increased educational opportunities for handicapped children in the schools have been included in the budget estimates of the board of education.

Funds have been allowed for organizing 24 new classes for children suffering from physical and mental defects. The number of ungraded classes for mentally defective children has been increased for mentally defective children has been increased from 396 to 401. Eight additional teachers have been allowed for the instruction of home-bound, crippled children, making a total of 76 such teachers for the coming year. For the benefit of children with defective vision, 6 new sight conservation classes will be organized, making a total of 74 throughout the city. The 7 classes for the blind at present organized were deemed sufficient to meet the needs of those children for the coming year. the needs of those children for the coming year.

Other branches of the service for handicapped children were continued on their present basis. The board allowed funds for continuing the 320 sessions for the after-school care and recreation for tuber-culosis and anaemic children, for the 135 classes for crippled children in the schools and for the 576 sessions for their after-school care. No change was made in the 39 cardiopathic classes at present organized, in the 49 classes for the deaf, and the 27

classes for speech improvement.

—Appleton, Wis. Nonresident tuition rates in the high school have been raised to \$3 per week. The rates for the junior high school and grade schools will remain at \$1.75 per week.

-Superintendent of County Schools Fern Maurer, of Cowley county, Kansas, has issued orders to school boards warning that all screens on school buildings must be fastened with hinges and that all exit doors must swing outward.

—Marshfield, Wis. The school board has reduced

the tuition fee for nonresident students from \$4.50 to \$3.50 in the high school, and from \$4 to \$3 in the upper grades.

-Durham, N. C. The school board has installed a new bookkeeping system in compliance with the new budget law of the state. The new system is an effort to place all of the accounting systems of the

city schools on an equal basis. —Cincinnati, Ohio. During the past summer the offices of the board of education have been moved from the Denton Building to 216 East 9th Street. In the new location, the assembly room of the board and the office of the clerk-treasurer are on the seventh floor. The offices of the superintendent, assistant superintendents, and directors of primary grades and evening activities are on the sixth floor. The remaining directors are housed on the fifth floor. The fourth floor contains the offices of the vocational bureau, the psychological department is on the third floor, and the attendance department on the second floor.

-Detroit, Mich. A total of eleven school buildings, or units of schools, were occupied for the first time in September.

The 1927-28 school-building program which is progressing rapidly includes eleven further build-ings which are in the course of erection. In addition, bids have been received for the erection of the Wilson addition and for the first unit of the Cooley High School. Plans are being prepared for the Hally School and for the Philip Intermediate

-Albion, Mich. The board of education has discontinued the practice of appointing committees and will in the future conduct all business as a committee of the whole. The only committees which will function are those which the president will appoint from time to time to carry out certain policies and procedures which the board outlines.

Mr. Levi Mengel, curator of the Museum and Art Gallery of Reading, Pa., has offered to the local museum his private collections of museum materials covering a period of over fifty years.

The collections consist of the following divisions: A collection of American anthropology, including the North American Indian relics, nearly all of Berks county; Greenland Eskimo material brought back from the Peary expedition to the far north; Aztec and Inca images of pottery, stone, silver, and gold, together with other items representing primitive life in America; a collection of birds, both mounted and in skins; a collection of minerals containing a full series of Berks county rocks and minerals, as well as many minerals of the scarce species throughout the world; a collection of butterflies from every known part of the world; a collec-tion of Greek, Roman, Babylonian, Egyptian, Irish, and Lake Dweller antiquities, and a miscellaneous series of ethnological material, such as weapons from all parts of the world, many of them jewelled

and damascened with gold.

The collections which have been accepted by the board of school directors will be installed and provided with suitable tablets designating the Mengel collections.

New York Schools Receive Increase in State Aid New York City will receive approximately 50 per cent more in state schools and grants in 1928 than it received last year and substantial increases in addition will be allowed in 1929 and 1930. Tentative estimates of local officials put the total state aid for 1928 at \$34,000,000, and for 1929 at \$39,000,000. This year the city received \$23,284,864.

The large increase for 1928 will make available funds with which to increase the salaries of the teaching staff and of the administrative and custodial employees. The board of education has reserved for next year \$14,000,000 of state aid for this purpose. This includes approximately \$3,000,000 which will accumulate this year from and after August, when the Dick-Rice law took effect.

The present calculations put the city's share of state aid next year at \$33,899,466. This is approximately \$10,500,000 more than was available



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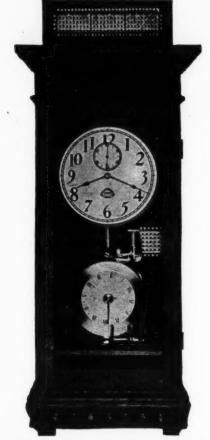
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#### Present-Day Practices and Problems in City School Administration

Gleaned from Studies of the United States Bureau of Education

CITY SCHOOL SYSTEMS FAVOR FIVE-HOUR DAY

The five-hour school day has been generally accepted as the most satisfactory for pupils in the elementary grades of city school systems throughout the country, according to a recent survey conducted by the United States Bureau of Education.

The survey shows that the five-hour day is the standard in the school systems of 42 cities having

a population of 100,000 and over. In grades below the third year, four hours and forty-five minutes is the median length of the school day in the same

For pupils attending the junior high schools, 36 cities reported that five hours and forty-five min-utes is the median as against a median of five hours and thirty-five minutes in the senior high

schools of 41 cities. schools of 41 cities.

The survey shows that in New York City, the five-hour day applies to the elementary grades above the first year, and to the junior high schools. The first-grade pupils receive four hours' instruction daily and the senior high-school students have a school day of five and a half hours.

The total number of hours of the school day reported by the cities was exclusive of the lunch hour.

ported by the cities was exclusive of the lunch hour and the recess periods. The median length of the lunch hour for the first three years of the elementary school was 75 minutes, and for grades above the third year it was 70 minutes, and for grades above the third year it was 70 minutes. For junior and senior high-school students, a thirty-minute lunch was the general rule. Recess periods of twenty minutes per day is the standard for elementary schools as compared with an allowance of fifteen minutes per day for junior and senior high schools.

FINANCES HANDICAP SCHOOLS FOR

ADULTS

The movement for public evening schools for adults has been seriously handicapped by uncertain financial provision, according to Mr. L. R. Alderman, chief of the division of adult education of the United States Bureau of Education.

Mr. Alderman attributes the present situation to a lack of understanding on the part of the general

public of the importance of the work. He points out that, in the past the public schools were thought of as being exclusively for the youth of the country, but recent studies show that formal learn-ing should not stop there.

It is but natural, according to Mr. Alderman, that taxpayers of the country should look to the public schools for help in the movement for adult education. Public education for the large number of men and women must naturally be given in the late afternoon or evening. For this reason the term evening school is used in connection with any session of the school conducted for those beyond the compulsory school age and held outside of school hours

The rapid growth in enrollment in evening schools may be noted when it is shown that the enrollment increased from 134,778 in 1910 to 943,442 in 1924. If the evening schools were as effective in all districts as they are in some districts, the attendance in them would be 10,000,000 to 12,000,000 instead of 1,000,000. It is estimated there are fully 25,000,000 persons who could profit by attendance in these adult schools if they could be actually reached and enrolled.

In spite of the fact that public schools have been thought of as exclusively for youth, recent psy-chological studies have shown that formal learning does not stop with youth. Adult students in the colleges and universities of the country have demonstrated quite conclusively that adults excel as students. Mr. Alderman in this connection, quotes from a recent report of Dr. E. L. Thorndike of Columbia University on the results of his investigations in this field. In the evening schools of New York City, where the task of learning Esperanto was given to four age groups, it was found that group IV made up of persons from 30 to 39 years of age, made the best progress. The time of the greatest learning ability, coming at a period when most people are not in school, was found to be a most significant fact and one that should cause a reorganization of the school program.

THE PROBLEM OF FACILITIES COMPLICATES CITY-SCHOOL ADMINISTRATION

The transformation of the United States into a predominantly urban country has made the administration of the city schools as complicated as the administration of a large private corporation, according to a recent statement of Mr. W. S. Deffenbaugh, chief of the city-school division of the bureau of education.

The statement shows that an expenditure of millions of dollars is needed in the larger cities to keep pace with the growth in population, equitable salary schedules, and courses of study must meet present-day needs. Among the important problems which face the city-school administrator, according to Mr. Defenbanch are advection for the preschool which face the city-school administrator, according to Mr. Deffenbaugh, are education for the preschool child and for adults. He shows that the cities of the country have become the centers of political, industrial, and commercial power. They are also the centers for education, wealth, and culture. The cities present the great problem in America, as in any other country since the civilization of any other country, since the civilization of a country is determined by the character of its cities.

Mr. Deffenbaugh points out that, since the city of today is the problem of society, the kind of edu-

cation given city children is vitally important, not only for the present generation, but for the future of the country. How to educate the city child is today the greatest problem facing the educational world, in the opinion of Mr. Deffenbaugh. The city is a good place to carry on business, or to attend lectures, but there is almost nothing for the child to do except run the streets, loaf, and go to school. Children need to know how to work with their hands, but in the city there is little opportunity for boys or girls to do constructive work. There are no chores for them to do and it is rare that a city provides sufficient playground space for all the children. There is little contact with nature, especially for children living in tenements and apartment houses.

In meeting the problem of educating the city child, the educator must think of more than the teaching of the three R's. He must be a statesman looking ahead, and he must know the aims and ideals of his city, or rather, he must help form its aims and ideals through the children in the schools.

In addition to the problem of educating the child of school age, there is also the other problem of educating the preschool child. At the present time,

(Continued on Page 102)

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(Continued from Page 100)

many mothers work at some gainful occupation, while others are engaged in social affairs, so that many children of preschool age are left largely to themselves. This is the most impressionable age of life and habits that may mar the whole future life may be formed. If mothers work, or devote their time to social affairs, there is no one to guide the child in the home for part of the day.

Another problem is that of adult education. Thousands of men and women whose early education was neglected are demanding that they be given to attend school in the evening.

an opportunity to attend school in the evening.

The administration of city schools has become as complicated as the administration of a large corporation and one might continue indefinitely to enumerate the problems facing the school authorities in every city.

THE ALL-YEAR SCHOOL AS AN AID IN RAPID ADVANCEMENT OF PUPILS

Mr. W. S. Deffenbaugh, chief of the city-school division of the United States Bureau of Education, in a recent study of the value of the all-year school

in a recent study of the value of the all-year school plan, points out that increases that would be required in the school budgets for the operation of the plan would serve to retard the adoption of an all-year school program for pupils.

Mr. Deffenbaugh shows that comparatively few cities are operating their schools on the all-year plan. Many have organized summer schools of six or eight weeks in duration, but these schools usually serve only two classes of pupils, those who usually serve only two classes of pupils, those who have failed, and those who by intensive work may gain an extra promotion. Since many school ad-ministrators favor the all-year school, the question arises, why have not the cities of the country extended the summer session to twelve weeks as an

integral part of the course?

In the opinion of Mr. Deffenbaugh, the school budget would have to be increased temporarily to operate the schools twelve additional weeks, but if the pupils would complete the twelve-year course in fewer years, the cost per pupil for the entire course would not be any greater than if the schools were in session only 36 weeks a year. Under the present plan a pupil would pass from the first grade up through the high school in twelve years, while under the all-year plan, the pupil would make the same advancement in nine years of 48 weeks each. If this is true, the cost per pupil completing the course would be no greater under the all-year plan. It might be even less, since the cost of maintenance during the summer months is less.

The main question to consider, however, whether the schools can be made more efficient if operated on the all-year plan. Economy should not be measured by expenses but by returns. Increased expenditure often increases the rate of the dividend. Many a businessman fails because he does not put enough money into his business to make it pay No doubt our schools would pay better dividends on the money invested if they were operated for the entire year. No business concern would let its plant lie idle for three months of the year, yet the school buildings of the country are idle this length of time, and since there is nothing profitable for the children to do during the summer, they roam the streets the streets.

It is true that, while the all-year schools do not do all that was originally claimed for themthat is; carry any considerable number of pupils through eight grades in six years, they do advance the pupils more rapidly and give them greater educational attainment than pupils of similar ability, heredity, and social background receive in the traditional schools; that while it takes the average pupil in the all-year school nearly eight years to complete the grades, it takes the pupils in a tra-ditional school a much longer time, and further, that while the all-year graduates do not make as good a showing in the high school as traditional graduates, the reason is not less efficient work in the schools, but the innate capacity of the pupils themselves and the fact that the all-year schools hold and carry through a class of pupils who would be likely to drop out in the traditional schools.

GROUPING PUPILS ACCORDING TO

ABILITY

How to individualize instruction so that each pupil may advance in proportion to ability and effort, and at the same time be socialized, was discussed by Dr. W. S. Deffenbaugh, chief of the cityschool division of the United States Bureau of Education, in a recent statement on the grouping of pupils according to ability.

The plan of grouping pupils upon the bases of mental and achievement tests is used in the elementary grades more than in the junior and senior high schools of the United States. Dr. Deffenbaugh stated that while no scientific evaluation of the Dalton plan has been reported, evidence from the schools themselves indicates certain merits. He pointed out conclusions reached in a recent survey of the operation of the Winnetka plan.

Dr. Deffenbaugh finds that the plan most used in adapting the school to the individual pupils is

to divide a given grade into a number of groups so that pupils of like ability will be in the same group. The usual plan is to form three groups, the rapid, the average, and the slow, and to adapt the curriculum and the instruction to each group. In some schools as many groups as possible are formed. If, for instance, there are 200 secondgrade children in a building, the grade is divided into five or six groups, usually with more children

in the faster-moving groups.

Various bases are used for classifying the pupils, as intelligent quotient, mental age, educational age, and teacher's judgment. There is usually a combination of two or more of the bases, the teacher's judgment appearing most often in combinations, and only rarely as the only basis for classification.

The plan of grouping pupils is used in the ele-mentary grades more than in the junior and senior high schools. Of 163 cities with from 10,000 to 30,000 population reporting to the Bureau of Education, 145 have adopted the plan in some or all of the elementary grades, 119 in some or all of the junior high-school grades, and 81 in some or all of the senior high-school grades. Of 89 cities of 30,000 to 100,000 population reporting, 66 use the plan in elementary grades, 57 in the junior high school, and 36 in the senior high school. Of 40 cities of 100,000 or more population, 36 use the plan in the elementary grades, 28 in the junior high school, and 26 in the senior or four-year high school.

Among the methods used may be mentioned the Dalton plan and the Winnetka system. Since much has been written about each of these plans, a description of their methods is not necessary. Of 280 superintendents in cities of 10,000 or more population reporting, 44 are using the Dalton plan or some modification of it, and 42 are using the Winnetka plan.

Some of the conclusions reached regarding the

self-directed or individual methods are 1. The interest of the children in the work is largely spontaneous. They feel a keen need for further knowledge and they apply themselves eagerly to the work. They ask for more books to read and for more work in arithmetic.

The success of each child received recognition. One of the greatest motives for further effort for adults, as well as children, is the satisfaction of

accomplishing a given task successfully.

3. A difficulty met was a challenge to each child to think, independently, or cooperatively with a self-selected group. Often his approach to the (Concluded on Page 105)

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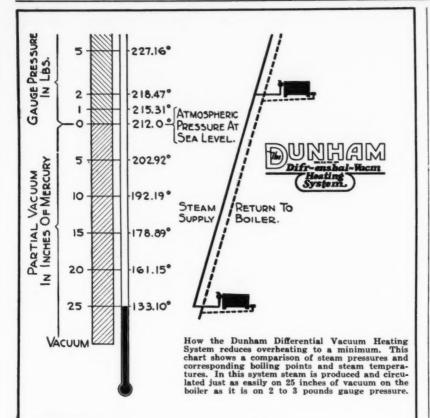
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(Concluded from Page 102)

teacher was an inquiry if his original method of solution was correct.

4. Each child was actively making an effort during a much longer proportion of the time than under the more formal, traditional plan of instruction.

In the discussion of the results and methods of others, the pupils were learning to weigh advantages and disadvantages and to come to the conclusion of a judgment. Thus, they were helping to determine their own methods of study; and they were frankly criticizing each other.

6. Anyone who is having the experience of such frequent discussion of his methods and results, free and frank and yet under the kindly control of the teacher, is developing an attitude that will enable him to face adverse criticism more intelligently.

7. It is only fair to all children to let each

progress at his own rate.

8. With the greater variety of opportunity for each individual more abilities have the chance for

9. In individualizing instruction there is always the query: Is not real social intercourse eliminated In this experiment actual social inter-

course and cooperation occurred to a far greater extent than under the formal classroom procedure.

10. The degree of achievement was greater under the self-directed than under the formal

SUMMER SCHOOLS AN ECONOMY TO CITY
School authorities in New York City estimate
that fully half a million dollars will be saved to
the city through the operation of summer classes
provided the usual percentage of children with
certificates maintain their advanced grades between September and February.

It is estimated that certificates of successful completion of a term's work were awarded to 13,598 children in the opportunity classes of the vacation elementary schools. Approximately 2,500 junior high-school children were sent back to the regular-term schools entitled to advance a grade.

Figures have been compiled by the school au thorities which endeavor to show that if these 13,000 children were forced to spend an extra half year in school, the cost to the city would have been approximately \$560,000, the cost of educating 13,000 children for one term at a per-capita cost The city expended for the vacation elementary and junior high schools approximately \$120,000, thus the net saving to the city is approximately \$440,000. This saving includes the cost of 48 manual-training and homemaking classes maintained during the summer, in addition to the classes in required subjects.

A total of 19,745 children registered in the vacation elementary and junior high-school classes during the summer high summer hi

tion elementary and junior high-school classes during the summer holidays were awarded 17,318 certificates of proficiency. In the junior high schools, where 3,163 students took 4,770 examina-

ions, 3,720 certificates were earned.

In the elementary schools, 19,069 children were enrolled, but only 16,582 were eligible to take the examinations. There were 2,487 children who failed to attend the necessary 27 sessions to be eligible to profit by the suppose work but of the requiring profit by the summer work, but of the remaining pupils, 82 per cent, or 13,598 pupils, passed the final tests.

PUBLIC-SCHOOL ADMINISTRATION IN

NORTH CAROLINA
The North Carolina Department of Public Instruction, in its latest report, offers a resume of important school facts relating to the administration of the school systems of the state. tions do not cover all the queries that might be asked, but they do concern some important phases and problems of the school system. The replies to the several questions have been taken from the data for the year 1925-1926 and are conspicuous for their brevity and conciseness.

Replying to the question, who administers the public schools? the answer is made that the state board of education has the general supervision of the public schools and has power to make all rules and regulations not specified by law for the government of the schools.

Replying to the question, what are the duties of the state superintendent of public instruction? the answer is made that the superintendent looks after the general school interests of the state; acquaints himself with the educational needs, counsels with the county boards of education, has printed and distributed all the educational bulletins, and makes a report biennially to the governor.

Replying to the question, how are the schools supported? the answer is made that the schools are supported by the county, state, and local funds.

Replying to the question, what did the elementary and secondary education cost in 1925-26? the answer gives \$32,443,426.

Replying to the question, how much was spent per child in schools? the answer is \$39.63.

Replying to the question, what are the main causes for the increase in educational costs since 1913? the answer is that the main causes are (1) Increased cost of living, (2) Total enrollment since 1913 has increased 46.6 per cent and high-school enrollment 433.2; (3) Attendance reached a percentage of 74.0 per cent in 1926 as compared with 65.5 per cent in 1913; (4) The average length of term has increased from 109.9 days to 146.5 days; (5) The qualifications of teachers have advanced considerably: (6) The value of school property. considerably; (6) The value of school property has increased from \$8,149,823 in 1913 to \$84,541,828 in 1926; (7) The course of study has been enriched with vocational arts, economics and agricultural courses, music, commercial courses, and courses in industrial education.

Replying to the question, how many pupils are enrolled in the public schools of North Carolina? the answer is a total of 564,114 pupils. The enrollment has increased from 474,111 in 1904-05 to 818,739 in 1925-26, and the percentage of attendance has increased from 59.0 in 1904-05 to 74.0 in 1925-26.

Replying to the question of salaries paid to teachers, it is shown that the salaries of white teachers have increased from \$43.85 in 1912-13 to \$114.45, and those of colored teachers from \$24.74 in 1912-13 to \$67.60 in 1925-26.

Replying to the questions on the length of the school term, it is shown that a total of 459,080 pupils attend school eight months or more, and 359,707 attend school less than eight months.

Replying to the questions on the amount and value of school property, it is shown that there are 6,795 schoolhouses in the state, having a total valuation of \$84,541,828, and an average value per schoolhouse of \$12,442. The average investment per child enrolled is \$250.41 for city white schools, \$86.94 for city colored schools, \$92.53 for rural white schools, and \$18.96 for rural colored schools.

Replying to the questions on consolidations, it is brought out that there are 814 consolidated schools in the state, having 2,317 vehicles for the transportation of pupils; a total of 87,283 pupils are transported to schools daily, at a cost of \$1,302,720, or an average of \$14.93 per child.

North Carolina is the 41st state among the states of the Union and holds the ninth rank among the

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she has to reserve part of her attention for the heating system.

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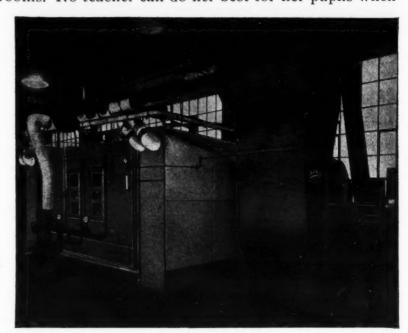
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HIGH-SCHOOL ADMINISTRATION

—Two of the credit hours required for graduation of senior high-school boys, and one of the credit hours required of senior high-school girls in Lincoln, Nebraska, must be in after-school sports. The health program includes discovery and removal of health handicaps, periodic examination of school employees as well as of pupils, and enrollment clinics for preschool children; teaching projects for better food and health habits, and physical training of all pupils.

physical training of all pupils.

In the annual inspection of pupils' eyes, ears, nose, and throat are examined by specialists; teeth by a dentist, and vision and hearing by a nurse. Height and weight are recorded twice each year, and special examinations, including heart and lungs, are given each year to pupils who wish to engage in competitive athletics or physical-education classes. Three systematic inspections are given each year for contagious diseases, and measures are taken for immunization. Provision is made in certain schools for open-window classes and properly-equipped restrooms.

SCHOOL ADMINISTRATION

—The report is published in Kansas that during the past summer there were 12,000 teachers seeking places in the 7,000 rural schools, and that as a consequence, many school boards had reduced salaries as much as \$15 per month. The Wichita Eagle makes the following comment:

"Colleges should lay the facts of overenlistment plainly before the students and urge those young folks who are not seriously considering teaching as a life work to train themselves in other lines. There are many phases of activity for which the youth of today can be trained without the fear of getting into crowded lists. And it will be fairer both to themselves and the teaching profession if they can be prevailed upon to see it."

—Hancock, Mich. The superintendent of schools, the principal of the high school, and five members of the faculty of the public-school system attended summer school the past summer with considerable profit to all. The completion of the course will no doubt redound to the benefit of all the schools during the ensuing school year.

—A radical change in the administration of the special schools for retarded children has been effected this year at Chelsea, Mass., with the centralization of the several classes in the Williams School. The classes will be under the supervision of special teachers and will have well-equipped rooms for the work. Under the former system, it was a policy of the administration department to conduct these classes in a number of schools throughout the city.

—About fifty children were recently barred from the schools for white children in Richmond, Virginia, on racial grounds. These children are declared to be neither white, red, nor black, but a mixture of all three. Under the racial integrity law of 1924, these children are ineligible for instruction in the schools for white children. As the state will not permit the descendants of Virginia Indians to attend the white schools, and the parents refuse to send them to the colored schools, the city has established special schools for these racial outcasts.

—Supt. Harold T. Lowe, of North Providence, R. I., in his report to the school board, has called attention to a rearrangement of the school calendar for the ensuing year. Under the plan, there will be eight weeks of school after the Christmas holidays, then a week's recess, followed by a second period of eight weeks, and a second recess, making a final period of eight weeks until the close of the school year. Mr. Lowe says there is much less illness of teachers under this arrangement than with the long drawn out period from Christmas until the spring vacation.

Mr. Lowe also points to the completion of a new course of study which will be used for the first time this year. Plans have been made for a testing of all children with a view to closer grading and diagnosis of individual difficulties.

—Racine, Wis. The board of education has adopted a rule limiting the admission of children to the first grade to those who are 6 years of age or more at the time of admission. Under the rule, children past 5 years of age may be admitted provided they have had not less than one full year of

kindergarten attendance covering not less than 150 days of actual attendance.

—The high school at Princeton, New Jersey, has been placed on a part-time schedule this year. Because of congestion, the senior high school will meet in the morning, and the junior high school in the afternoon during the first semester. The sessions will be reversed in the second semester. Preparations are being made for the erection of a new high school.

—The elimination of rural schools in Minnesota having an enrollment of less than fourteen pupils, is being sought by M. L. Jacobson, state director of rural education. In urging consolidation of these small schools, Mr. Jacobson pointed out that there are 463 schools in the state enrolling fewer than ten pupils during the school term. The average cost for each school is \$870, or 76 cents per pupil; under the consolidated plan, the average cost is \$632, or a per-pupil cost of 40 cents a day.

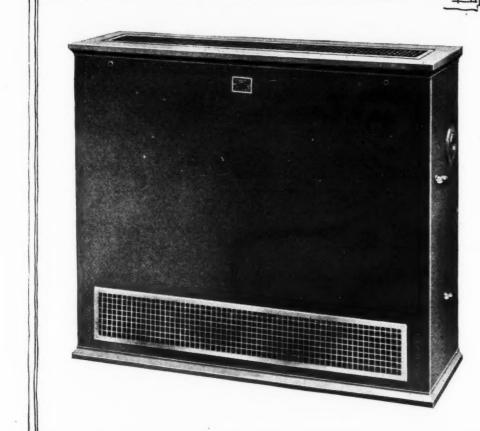
—Missouri's rural schools have come in for much denunciation at the various county teachers' meetings of that state. State Supt. Lee says the elementary schools need \$5,000,000, and that there are too many small high schools that ought to be consolidated. He holds that "If there are too many high schools it is an indication of mismanagement and waste of money, a leak which should be stopped before there is a demand for more money."

—The Fairmount school district located near Chattanooga, Tenn., has been in a turmoil. The school board has been petitioned by one faction of citizens to retain Miss Virginia Dodson, the principal, while the other faction wants her replaced by a male principal. One faction holds that the faculty is efficient while the other contends that "it is negligent and deficient."

—The state board of education of New Hampshire is keeping in touch with the progress made in radio as an aid to education. The state board of Connecticut is similarly interested in radiocast courses in music appreciation.

—The parent-teacher association of Augusta, Kansas, each year shows its appreciation of the teaching staff by giving them a reception on the Friday evening preceding the opening of the school year. A unique program is carried out in which the teachers are cleverly introduced to the audience. A social hour, with refreshments and music, completes the evening's entertainment.

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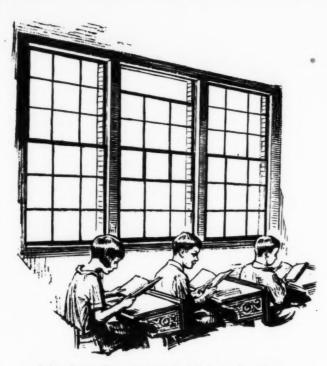
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has provided further proof of the wisdom of school authorities . . . Today Universal Heating and Ventilating Units stand out as an ideal system for school use . . . a system that is simple in design . . . yet dependable . . . economical . . . reliable and quiet.

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YOUNG eyes are delicate. They require ample light, but light of the proper kind. Natural light is best-bright, cheerful daylight. The more of it they get, the less artificial light they will need.

Make sure they DO get all the natural light possible. See that school building windows are kept clean with Oakite. Have them washed regularly this easy, effective way. Notice how much clearer they become—how free from cloudiness, smoky film, dirt, and everything else that bars out daylight.

Oakite materials are in use in hundreds of schools for cleaning windows, floors, walls, desks, and other surfaces; for washing dishes, trays, and cooking utensils—in fact, wherever there is cleaning to be done.

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AWARD FOR RESEARCH IN TEACHING **EFFICIENCY** 

The research service of the Pennsylvania State Education Association will in the near future stimulate experimental research in the objective rating of teaching efficiency. The research service plan will comprise each year some special project to be undertaken as a means of stimulating educational research. It is brought out that objective recogniresearch. It is brought out that objective recogni-tion (through salary increases) of training, experi-ence, and tenure is not justified except upon the objective evidence that they have resulted in in-creased efficiency. The time is now ripe for a study of the problem of the objective ratings of

study of the problem of the objective ratings of teachers, and for an appropriate recognition to the person who is judged to have been most successful in his attempts to solve the problem.

Under the rules of the research bureau, the award will be made some time after December, 1928, and will be given to any person in the educational profession regardless of where he resides. The research bureau will offer facilities for research to any student who submits a plan which appeals

to the secretary as especially meritorious.

The awards will be made by a committee of students in the field of educational science and the "appropriate recognition" will be determined by the executive council of the state education

#### RURAL-TEACHER SITUATION IMPROVED IN THE UNITED STATES

-Mrs. Katherine M. Cook, chief of the division of rural education of the United States Bureau of Education, has issued a statement to the effect that the supply of teachers for the rural communities of the country is no longer a serious problem. Mrs. Cook shows that all but a few states have overcome shortages of recent years, and that there is a consistent rise in requirements for certificates of teachers. She stated that where standards are low, salaries are correspondingly low, and shortages are consequently more prevalent.

It is brought out that the standards for teaching certificates have been raised in many states in ac cordance with a plan adopted by statute providing gradual, year-by-year improvement in the quality and quantity of credentials demanded for the lowest grade of certificate issued or as a prerequisite for all types of certificates. In Utah the culmination of such a plan was reached in Sentember. mination of such a plan was reached in September, 1926. States which have continued to raise the prerequisites for minimum requirements are Connecticut, Washington, and Pennsylvania; Colorado, Delaware, Indiana, Michigan, Missouri, Montana, New York, North Carolina, North Dakota, Wisconsin, and Wyoming have raised the minimum prerequisites during the biennium period in varying amounts of from six weeks to one year beyond the high school; Delaware, Iowa, New Hampshire, Connecticut, and Virginia have discontinued one or more of the low-grade certificates; Maryland, Maine, Minnesota, and New Mexico have adopted higher requirements for some types of certificate not the lowest grade, while Nebraska, New York, and Virginia have abolished the method of certification by examination and will hereafter issue certificates on the basis of academic and professional credits or credentials from recognized institutions.

The reports from the state departments of education show an upward trend in the training and compensation of teachers. In North Carolina the teacher-shortage problem is qualitative rather than quantitative. The deficiency is greatest among the elementary, especially among the rural elementary schools. Considerable progress has been made toward the elimination of teachers who hold lowerward the elimination of teachers who hold lower-grade certificates. To aid in meeting the demand for better-trained teachers, the school officials have employed many teachers whose training was re-ceived in nearby states. It is significant that within the past five years North Carolina has re-duced the number of white nonstandard teachers from 19 to 6 per cent, and the number of white teachers with less than two years' training beyond the high school from 61 to 45 per cent.

the high school from 61 to 45 per cent.

In Nebraska the number of teachers with the equivalent of a four-year-high-school education has reached 95 per cent, as against 77 per cent in 1921. Some good results have been obtained with a definite graduated certification law.

In New Hampshire not a single special permit has been issued to a rural teacher since September, 1926, and full high-school education will hereafter

In Delaware teachers holding third-grade certificates will be eliminated by 1930, or will become holders of second-grade certificates by 1935. It is planned to modify the salary schedule for teachers holding the first-grade certificate in order to justify the professional preparation necessary to see the content of the the professional preparation necessary to secure

the professional preparation necessary to secure that certificate.

In Maine there is no shortage of teachers and no surplus, but there is a shortage of well-prepared, experienced teachers. The school authorities are working on a program which gives an adequately-trained teacher, either with or without experience, to every school by 1930. There has been a slight increase in salaries for each year but one during the past eight years. the past eight years.

In Connecticut the percentage of trained teachers in the one-room schools of 95 small towns increased last year from 35 per cent to 47 per cent. The turnover of teachers was less and the number of beginners was reduced from 119 to 97. The average salary of teachers in small towns increased about \$100 last year. The minimum salary of teachers showed an increase, but the maximum salary re-

mained about the same.

In New York there has been an improvement in the teacher situation in the direction of supply and compensation of teachers. Last year 74 per cent of the teachers in one-room schools were graduates of the high-school training classes; in these schools, 65 per cent of the teachers received a salary of \$25 a week or more. There is no shortage of teachers and the salary situation shows a gradual improvement.

In Wyoming the qualifications for certification of rural teachers have been constantly raised. Highschool graduation, plus a half year of teacher training has been the miminum requirement for certification in the state since January, 1927.

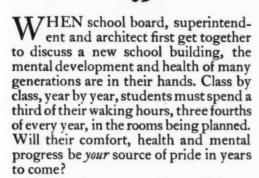
THE PROGRESS OF TEACHERS' COUNCILS
The organization of teachers' counsels is one of
the recent movements in city school systems of the United States that has been making considerable headway, according to W. S. Deffenbaugh, chief of the city-schools division of the United States Bureau of Education. Out of 140 cities in the United States with a population of 100,000 or more, 35

(Concluded on Page 110)

# Every School Board is a Board of Health and Its Architect a Doctor

"The HEALTH COUNCIL"

Because—in the building of every modern school—health, as well as mental efficiency, of many generations of school children, depend on the decisions of this small group of public spirited citizens (School Board members, Superintendent, Architect)—we refer to them here as "THE HEALTH COUNCIL."



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Light, heat and fresh air are vastly more important than bricks and mortar, fixtures—or even teaching staff. Most important is fresh air—because fresh air reduces illness; induces alertness. In properly ventilated classrooms, students thrive, mentally and physically. Attendance records, by actual test, are better—an important point, for absentees mean financial loss to your community.

You can give every child in every room an uninterrupted supply of warmed fresh air,



Thanks to the far-seeing judgment of school board, superintendent and architect in installing "The American System" of Heatwith-Ventilation in The ROANOKE SENIOR HIGH SCHOOL (above) and The ROANOKE



JUNIOR HIGH SCHOOL (below), many generations of future citizens of Roanoke, Virginia, will study in classrooms where conditions are 96% as perfect as a June day! (Central photograph shows typical firing room.



properly humidified. You can insure that to every future pupil at low first cost, at limited operating cost. The American System is the answer because it heats and ventilates at the same time.

Classroom air is completely replaced every eight minutes with fresh out-door air, warmed and humidified. Repeated tests show that classrooms, "AMERICAN equipped," enjoy conditions 96% as perfect as a perfect June day.

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One company of forty years' standing, through the engineers of its authorized agents, installs and guarantees The American System.

When you and your associates with the health of children in *your* hands, consider *your* plans, have the facts about THE AMERICAN SYSTEM before you. Get them from the nearest representative or write us direct.

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While this advertisement features schools, THE AMERICAN SYSTEM is also ideal for any building where fresh, warmed, humidified air is needed in ample quantities at reasonable costs (Schools, Theatres, Churches, Factories, Auditoriums, Public Garages, etc.) Write us for specific facts and call on our engineering department for technical data or actual help in solving your heating and ventilating problems.

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### PIONEER MANUFACTURERS OF PLUMBING FIXTURES FOR SCHOOLS

(Concluded from Page 108

cities have regularly organized teachers' councils in connection with their school systems, and 27 others have established some medium enabling teacher cooperation.

The councils are generally constituted for some or all of the following purposes: (1) To raise the standard of the teaching profession; (2) To encourage professional improvement; (3) To foster a spirit of sympathetic good will and helpfulness among teachers and officials; and (4) to democ-ratize the school system, that is, to give teachers

ratize the school system, that is, to give teachers a voice in shaping educational policies.

"The teachers' Council, in other words," said Mr. Deffenbaugh, "is the agency through which the superintendent of schools, the board of education, and the teaching corps arrive at a mutual understanding of the schools. That teachers should be consulted regarding the needs of the schools is evident, whether they be organized into councils or not. As expressed by Arthur H. Chamberlain, secretary of the California Teachers' Association: 'All progressive school people, whether administrators or classroom teachers, should see clearly the advantage and necessity of meeting upon a common ground for the discussion of common-school problems looking toward a common good."

It was found that in 22 cities the members of the councils are elected by component groups of the school system; in eight by the faculty of each school; in one they are appointed by the executive board, and in one by the nominating committee.

Of 21 cities reporting as to whom the acts and

decisions of the council are referred for ratification, seven report no one, four entire teaching body, three each teacher groups and board of education, one each superintendent, parent body, subcouncil, and teacher association.

Regarding the scope of their activities, Mr. Deffenbaugh said:

"The councils consider various questions, such as courses of study, textbooks, rating and promotion, supervision, physical equipment of of school to community, teachers' salaries and pensions, and leave of absence.

"Each representative is selected by election by the group he represents. These groups in the case of the teaching staff are determined by the administrative school divisions into which the district is

divided. The representative reports back to his own group the activities of the council, and receives instruction from his group relative to needs, desires, and opinions.

"The teachers' council should be an advisory, not an administrative body; it should realize that it is not to usurp the prerogatives of the board or of the superintendent, it should not be a body for merely destructive criticism. Each delegate should represent fairly and frankly in the deliberation of the council the views of the group which he represents. Endeavor should be made to have all the discussions of the council lead to action that is helpful and constructive."

TEACHERS AND ADMINISTRATION

—At Cleveland, Ohio, there were 252 teacher applicants and only 122 positions. "In former years students at the school of education took it years students at the school of education took it for granted they would be employed immediately after they had completed their course of training," said H. M. Buckley, assistant superintendent. "Formerly the supply met only one half the demand. The condition is now reversed."

—The cornerstone has been laid in Buenos Aires, Argentina, for a building which is to provide a home for retired teachers.

home for retired teachers.

—Statistics have been compiled in New York City showing that absent teachers in the schools are costing the city an average of \$7,704. Of the total, absent teachers in elementary schools are responsible for \$6,309, while regular substitutes for

absent high-school teachers account for \$1,290. Since 1922, when the average cost per day was \$5,106, the cost has been increasing constantly with each year until this year, when it reached the highest figure—\$7,704. It is expected that the cost will decrease during the next school year almost \$200.

—In order to provide teachers to take care of the

rapid expansion of the city school system the New York City board of education has created 333 new teaching positions since the close of the school year, and an additional 965 positions with the opening of the school year 1928. Funds amounting to \$742,710 for the former and \$1.225,171 for the latter are included in the budget estimates for 1928.

Of the total of new teaching positions, 139 are in the day elementary schools, at an estimated cost of \$273,525, and 155.6 are in the day high schools, at a cost of \$345,220. Included among these positions are a director of vocational guidance at

\$4,800, and an assistant director of homemaking at

-The board of education of New York City has created 1,298 new teaching positions to take care of the large increase in public elementary and highschool registration during the first semester and in 1928. To meet the cost of the increased person-nel, \$742,710 will be spent between now and the end of the year and \$1,225,171 in 1928, making a total of \$1,967,881. Twenty-three principals in elementary schools will be appointed, eighteen of whom will be active for four months in 1928, and 31 assistant principals. In all, there will be 656 appointments in the elementary schools, and 541 in the high schools. The divisions of training schools for teachers' vocational and trade schools and other professional control will have their staffs increased by 72. The increase in the high-school staff is the most important, calling for an appropriation of

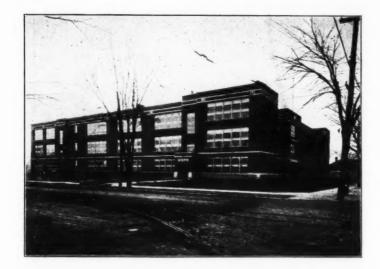
-The supply of teachers in Illinois is greater than the demand, as reported by A. L. Whittenberg of the state examining board. County superintendents are urged to exact better talent.

-A teachers' home has been opened at Inglewood, Calif., by the California Teachers' Association. It consists of a bungalow in charge of a housekeeper and a nurse. Two invalid teachers are the first in-This is the first home of the kind to be established in the State of California and is said to be the only one of the kind in the United States. It is the beginning of a plan for a larger home which will be on a par with those homes established by the various well-known fraternal organizations, according to reports.

—Of the students granted masters' degrees by the University of Chicago during the period of 1924-27, a total of 42 per cent came from farm homes. cording to survey reports, 65 per cent of all the students in the five state teachers' colleges of Missouri, 36 per cent of the students from the Louisiana State Normal college, an per cent of the students of the four Michigan State Normal schools came from farm homes. Even in the industrial states of Massachusetts and Pennsylvania, eight per cent and 19 per cent, respectively, of the normal-school students gave agriculture as the occupation of their parents.

# RESULTS COUNT MORE

# BINGHAMTON N. Y. ADOPTS HEATOVENTS FOR ITS THIRD NEW HIGH SCHOOL BLDG.



Christopher Columbus School erected in 1926 was equipped with forty-seven (47) Buckeye Heatovents.

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Binghamton, N. Y.

Heating Contractor

GAYLORD & EITAPENC,

Binghamton, N. Y.

East Junior High School erected in 1925 was equipped with forty-nine (49) Buckeye Heatovents.

Architects

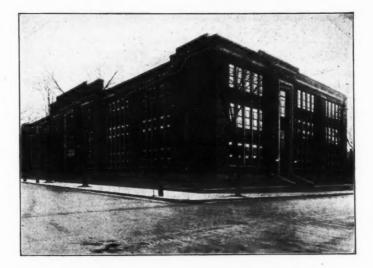
T. I. LACEY & SONS,

Binghamton, N. Y.

Heating Contractor

M. E. Lewis,

Binghamton, N. Y.



**B**ENJAMIN FRANKLIN School now under construction will be equipped with Forty-nine (49) Buckeye Heatovents. Heating Contract let to Gaylord & Eitapenc, Binghamton, N. Y. Architects, Conrad & Cummins, Binghamton, N. Y. (photo not yet available).

Results from previous installations are the best recommendations for the use of Buckeye Heatovents, the modern, self-contained Unit Heating and Ventilating System.

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Newark, N. J., 403 Military Park Bldg.
Pittsburgh, Pa., 709 Columbia Bank Bldg.
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## Repairs and Upkeep of Schoolhouses

The planning and construction of school-houses has been brought to a high stage of perfection. The question of upkeep, as reflected in repairs, has been less of a study, and it is, therefore, gratifying to note that some one has applied himself in dealing with the subject in a scientific way.

In a book entitled "Improvement in the Maintenance of Public School Buildings," Mr. Harwood Muzzy Schwartz, has gone into the subject scientifically in order to determine the relative importance of repairs. He deals with six factors: (1) Size of building; (2) average yearly cost of repairs for each building; (3) average yearly cost for repairs for each equivalent classroom; (4) age of buildings; (5) score of buildings, and (6) type of building for which data are available.

"The value of the study," says the author, "lies in the fact that it makes available to those interested in school-building construction and repair, facts concerning the elements in a public school building that require most frequent repair, the type of building that requires the least expenditure for repair, and the elements, which because of the frequency of need for repair, merit scientific study in order that faulty materials or fabrication may be improved. The study points out the relative importance of the various types of repairs for the purpose of encouraging further refinement of school accounting in this field as well as the need of a more scientific distribution of expenditures. further values lies in the fact that a refinement in the field is indicated which should make possible the scientific determination of the life of certain most important elements of the structure, and in noninstructional equipment (of school buildings)."

He then supplies a number of tables in which he deals with the several items which are likely to become subject to repairs, their frequency during the several months of the year, and the total number of such repairs in the course of the year. He bases these studies upon one city which in all probability is of average size.

In Ranking Repairs According to Frequency
The following table is designed to show how
the number of repairs may arise during the
year and what equipment is affected:

	TABLE II	
Cor	mbined Subheads Ranked According to Fre	
4	Subhead Number of General Repairs	Ca
1.		
2.		
3.	Hot Water	
4.	Screens	
5.	Toilet Seats	
6.	Service Connections	
7.	Lavatories and Sinks	
8.	Fire Protection	
9.	Floors	
0.	Drinking Fountains	
1.	Bibbs	
2.	Mason Work, Plastering, Painting	
3.	Gas	
4.	Return Lines	
5.	Partitions, Coal Bins	
6.	Engines, Motors, Elevators	
7.	Telephones	
8.	Steam Lines and Valves	
9.	Radiators	
0.	Tanks, Toilet, and House	
1.	Temperature Control	
2.	Toilet Bowls, Latrines	
3.	Feed Lines	
4.	Stairways, Fire Escapes, Railings	
5.	Trim. Blackboards	
6.	Switchboards, Switches, Fuses, Inspection.	
7.	Locks	
8.	Drains	
9.	Doors and Hinges	
0.	Roofs	
1.	Fixtures, Electric	
2.	Door Checks and Stops	
3.	Wiring	
4.	Sash Cords, Chains, Fasteners	
5.	Grounds	
6.	Painting	
7.	Boilers	
8.	Glazing	
9.	Bells, Clocks, Alarms, Batteries	

The author supplements this table with another which shows the relative importance of

the various repairs in the light of estimated cost:

	TABLE III	
Com	Importance of Total Estimated Cost	Relative
	Subhead	Amount
1.	Toilet Seats\$	316.80
2.	Urinal and Urinal Vents	931.38
3	Hot Water	1.187.04
	Bibbs	1.218.77
	General Repairs	1,422.74
	Lavatories and Sinks	1,700.52
7.	Door Checks and Stops	1,716.00
	Telephones	2,284.00
	Locks	2,412.55
	Gas	2,628.60
	Fire Protection	3,131.22
	Drinking Fountains	3,317.16
	Return Lines	4,108.44
	Partitions and Coal Bins	4,190.46
15.	Screens	4,220.64
16.	Switchboards, Switches, Fuses, Inspec-	
	tion	4,565.52
	Toilet Bowls and Latrines	5,491.86
	Service Connections	5,950.94
	Trim and Blackboards	6,579.00
	Feed Lines	6 676.67
	Steam Lines and Valves	7,203.78
	Tanks, Toilet, and House	7,204.77
	Radiators	7,511.80 $7,729.00$
	Motors, Engines, Elevators	
	Temperature Control	9,402.37
20.	Walls	10.134.24
27.	Floors	11.028.96
28.	Fixtures. Electric	12.856.76
	Drains	12.895.52
	Wiring	14,576.34
	Doors and Hinges	18,742.36
	Sash Cords, Chains, Fasteners	26,052.09
	Bells, Clocks, Alarms, Batteries	26,729.36
	Stairways, Fire Escapes, Railings	27,378.00
	Roofs	32.122.99
	Glazing	37,032.15
	Grounds	55,674.06
	Boilers	67,708.35
		99.021.20

In summarizing his conclusions the author holds that "the distribution of school expenditures for school purposes has not reached the stage of development necessary for an accurate allocation of expenditures between capital outlay and maintenance. He concludes, however, that "buildings of the better type tend to cost less for repairs per classroom. The size of the building tends to influence the cost of repairs per classroom, the larger buildings tending to cost less. Buildings erected within the last twenty years tend to have more classrooms, to have higher scores, and to be of a better type. They tend to cost less for maintenance per classroom than buildings erected more than thirty-five years ago.

"The evidence here presented seems to substantiate the contention of those who have set up definite standards for school buildings that the larger, more adequately equipped, more nearly fireproof buildings are not more expen-

sive from the standpoint of cost of repairs per classroom.

"The chances are ten to one that buildings containing from twenty-one to forty rooms will demand less expenditure per classroom for repairs than the buildings with from two to ten rooms. Buildings under twenty years of age have ten chances to one of costing less for repairs per classroom than buildings over thirty-six years old. These facts indicate that the path of economy lies in the direction of larger buildings, constructed of high-grade material and furnished with service equipment of exceptional operating efficiency. Such buildings demand scientific study and skillful planning if they are to meet to the fullest degree possible the needs of the educational program."

#### Repair Surveys and Budgets

Mr. Schwartz takes occasion to point out the manner of repair surveys and budgets as follows: "A preliminary requisition for repairs should be prepared in multiple by the principal and engineer-janitor of each building. These lists should be filed with the department of buildings two months prior to the date of the meeting of the board of education at which the general budget is adopted. The lists should be checked and supplemented by division chiefs and inspectors. Cost estimates should then be prepared for each job and summaries made for each building. Each job should be coded and classified as emergency, imperative, or desirable. As early as is practical a conference with those responsible for the preparation of the general budget should be held and the repair budget approved. With the budget approved the summary of repair jobs can then be authorized and the several jobs numbered. The authorized summary of repairs should then become the work program for the department of buildings for the ensuing year.

"The repair budget should be set up in detail according to the work program determined for each building. The total of the maintenance appropriation in the general budget of the board of education should be distributed equitably over the several buildings. The distribution should be made in keeping with the needs of a particular building and the system as a whole. The repair ledger account for each building should show the amount of maintenance appropriation apportioned to it. Against this appropriation should be charged the work orders as they are issued."



THE CLARA BARTON SCHOOLHOUSE, WHERE CLARA BARTON, THE FOUNDER OF THE AMERICAN RED CROSS, TAUGHT SCHOOL FROM 1852 TO 1854.

The building was erected in 1839 and was restored and dedicated in 1921 by the school children of the state.

'Teachers' College, Columbia University, New York, 1927.



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ings will not wear it away. Handsome as the finest enamel, it costs less and requires fewer coats.

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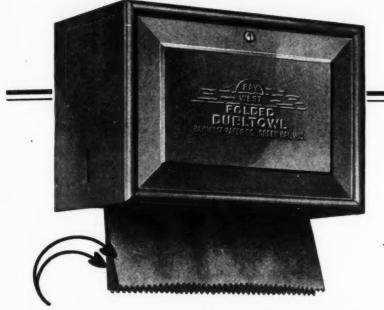
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City																			. 5	38	a	te								

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Baton Rouge, La.
Tacoma, Wash.
Philadelphia, Pa.
Cleveland, Ohio.
Mobile, Ala.
Dallas, Texas.
Shreveport, La.
Pine Bluff, Ark.
Eugene, Oregon.

Long Beach, Calif.
Pasadena, Calif.
South Bend, Ind.
Columbia, S. C.
Terre Haute, Ind.
Baltimore, Md.
Dayton, Ohio.
Cincinnati, Ohio.
Oakland, Calif.
Amarillo, Texas.
Richmond, Va.
Toledo, Ohio.
San Antonio, Texas.
Houston, Texas.
St. Joseph, Mo.
Salem, Oregon.
Winston-Salem, N. C.
Raleigh, N. C.

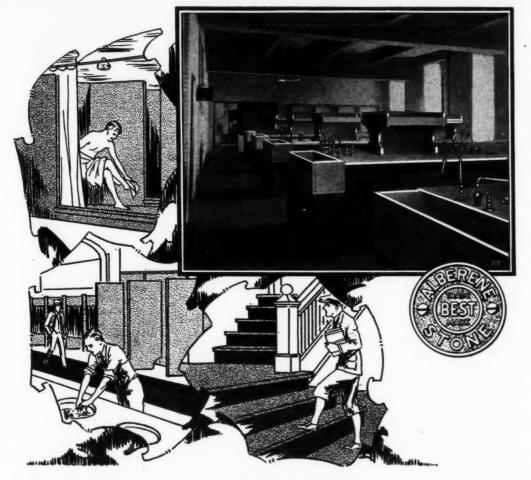
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-Miss Annie Laws, a former member of the board of education at Cincinnati, Ohio, died at a local hospital July 1, following an illness of eight

Miss Laws was actively interested in the fields of education, music, and arts, and held a membership on the board of education for a number of

-The board of education at Herington, Kansas, has elected Mr. V. C. Kingsbury as president for a tenth consecutive term. Mr. Kingsbury has been a member of the board for the last eighteen years. The other members of the board are: Mr. P. H. Knuth, vice-president; Mr. F. M. Thompson, clerk; Dr. H. Marshall, F. D. Carman, and Dr. R. C. V.

-Frank F. Harwi was elected president of the board of education at Atchison, Kans.

-The school board at Montgomery, elected the following officers: President, E. E. Westerman; clerk, J. A. Kaisersatt; treasurer, Frank J. Kotek.

-The board of education of Aurora, Mo., elected W. N. Burney as its president. H. P. Grammer is the new member of the board.

-D. J. Beals has been reelected member of the Springfield, Oregon, board of education.

-The Lions' club of Farmville, Va., at its weekly luncheon entertained the members of the school board of Prince Edward county.

The school board at Crown Point, Indiana, is without a president. Each of the three members of the board, George Hershman, John H. Lehman, and Mrs. Avis Brown, declines the honor.

—Illinois. Richard V. Lindsey has been appointed principal of the community high school at Pekin. At Genesco, Ill., James D. Warnall has been

named the superintendent of the high school. Olive Staffregen has been named principal of the schools at Oregon.

-O. L. Amsler was chosen principal of the high school at Decatur, Georgia.

-The Cottonwood, Idaho, school board selected A. Waters as superintendent, and Leo Provost as high-school principal.

—The high school just completed at Kankakee, Ill., will be headed by J. E. Patton as principal.

-W. A. Guthrie, superintendent of schools at Guthrie, Okla., has distinguished himself in being able to lead the local high-school orchestra and bring it to second highest place in the state.

-Mr. Harlie Garver of Union City, Ind., has been appointed superintendent of schools to succeed Roy P. Wisehart, who resigned to become state superintendent of public instruction. Mr. Garver is a graduate of Hiram College and holds a degree given by Columbia University.

-Mr. John J. Lee of Evart, Mich., has accepted position with the state education department. Mr. Fred Smiley has been elected to succeed Mr. Lee at Evart.

-Mr. Wilson New of South Pittsburg, Tenn., has been elected principal of the Rule Junior High School at Knoxville.

-Mr. R. S. Worland of Litchfield, Ill., has assumed his duties as superintendent of schools.

—Mr. Howard K. Gauernfeind of Polo, Ill., has been elected superintendent of schools at Mon-

-Mr. C. C. Katterjohn of Boonville, Ind., has accepted the principalship of the high school at New Albany. Mr. Katterjohn's place will be taken by

Mr. Ivor Robinson.

—Mr. Frank W. Phillips has been elected superintendent of schools at Freeport, Ill., to succeed S. E.

-Mr. A. J. Ratchford of Dunmore, Pa., has been elected superintendent of schools at Shenandoah, to succeed J. W. Cooper.
—Mr. Philip C. Lo

the high school at Mt. Clemens, Mich., has become assistant superintendent of schools at Hamtramck. Mr. Lovejoy is succeeded by Mr. Paul A. Rhemus of Ann Arbor.

-Mr. Frank O. Medsker of Boston, Ind., has been elected superintendent of schools at Alexandria -Mr. H. J. Trainor of Crystal Falls, Mich., has been elected superintendent of schools at Lake

-Mr. A. O. Grooms has been elected superintendent of schools at Boston, Ind. Mr. Grooms is a graduate of Miami College and was formerly su-

perintendent at Covington. -Supt. Charles L. Poor of Traverse City, Mich., has been reelected for a three-year term, with a

substantial increase in salary.

—Mr. L. W. Dooley has been reelected superintendent of the Hibbing, Minn., high school for his

eleventh term. —Mr. J. W. Kolb of Princeton, Ill., has been elected superintendent of schools at Newman.

-Mr. James E. Herriott, of Yates City, Ill., has resigned as superintendent of schools and will enter another line of work.

 —Mr. I. Meyer has taken up his work as superintendent of schools as Savanna, Ill.
 —Mr. William D. Byrns, superintendent of schools at Iron River, Mich., for nine years, has resigned.

-Miss Lulu Pickett has been appointed acting superintendent of schools at Superior, Wis., pending the appointment of a permanent superintendent.

-Mr. H. V. Church, formerly principal of the J. Sterling Morton High School, Cicero, Ill., has been appointed as superintendent of the school. Mr. F. L. Bacon of Newtonville, Mass., has become prin-

cipal of the school.

—Mr. W. E. Patty of Plainview, Tex., has been elected superintendent of schools at Floydada.

—Mr. C. C. France, of Muncie, Ind., has been

appointed assistant superintendent of schools at

-Dr. S. Monroe Graves of Wellesley, Mass., is completing his fourteenth year as superintendent During his incumbency, the schools of schools. have nearly doubled in attendance and several important features have been inaugurated. Among these is the reorganization of the school system, the establishment of an ungraded class for slow children and a rapid-promotion class for bright children, summer schools, evening schools, and home classes.

—Mrs. Isabel Pearson was chosen principal of the Fourth school at Winsted, Conn.

-The school board of Harvard, Ill., reelected William W. Meyer as superintendent.

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A pedestal fixture of galvanized pipe with extra heavy vitreous China bowl and vertico-slant stream. An extra strong fountain for the playground.



-Mr. P. W. Thies, Mr. M. Knoll, and Mr. George Rinhart have been reelected as members of the school board at Lane, S. Dak.

—Mr. F. G. Hill has been reelected, and Mr. O. D. Hilde is a new member on the school board at Fargo, N. Dak.

—Mr. Ralph Thompson is a new member on the school board at Seymour, Ind.

The school board of Holton, Kansas, has reorganized with the election of the following officers:
President, Dr. E. W. Reed; vice-president, Mr. S. T. Osterhold; clerk, Mr. W. W. Schirmer.
Mr. L. M. Rayson and Mr. V. C. Noper have

—Mr. L. M. Rayson and Mr. V. C. Noper have been unanimously reelected for three-year terms as members of the school board at Thief River Falls, Minn.

—Mr. O. E. Bertie has been elected a member of the school board at Roanoke, Va., succeeding Mr. S. S. See.

—Mr. Fred Skola has been elected clerk of the school board at Vibord, S. Dak., to succeed Arnold Frederickson.

—The school board of Almira, Washington, elected Lyle E. Cubbage as its chairman, and Mrs. Mollie D. Hyde as clerk.

—The new members of the Galesburg, Ill., board of education are Mrs. Louise O'Connor, W. H. Pankey, and Fred Mureau.

—James T. Montgomery, newly elected member, was chosen president of the board of education of Sedalia, Mo.

—Mr. W. D. Vincent, who has been appointed state commissioner of education of Idaho, to succeed Miss Ethel Redfield, goes to his new office from the superintendency of the Idaho Industrial Training school. In assuming the duties of the office, Mr. Vincent takes over a work which has been re-created through the splendid efforts of Miss Redfield, his predecessor.

Redfield, his predecessor.
—Supt. F. M. Shelton of Springfield, Ohio, has been reelected for a four-year term, with a salary of \$7,200 the first year and \$7,500 the second year.
—Dr. Charles M. Jordan, superintendent-emeritus

—Dr. Charles M. Jordan, superintendent-emeritus of the Minneapolis, Minn., schools, has been "redoctored" by Tufts College. Dr. Jordan who has been associated with the schools of the city for more than half a century, is still in active service in the school department.

—Mr. John Vaughan, who has succeeded Mr. M. A. Nash as state superintendent of public instruction of Oklahoma, goes to his new position from

the presidency of the Oklahoma College for Women at Chickasha. As dean of the State Teachers' College at Durant from its establishment, he contributed much to the success of that institution.

—The board of education of Lafayette, Indiana, entered into contract with A. E. Highley in April, and in July cancelled the same again. The action which was prompted by two members was later deemed unfair and without cause, and was consequently rescinded. Mr. Highley has now been assured the full support of the board members.

—Dr. Frank M. McMurry, who recently retired as professor of education at Teachers College, Columbia University, has been appointed as director of the Scarborough School at Scarborough, N. Y. Dr. McMurry is a graduate of the University of Michigan and a recognized authority on education. Since 1898 he has been connected with Teachers College, where he has been a leader in the development of elementary education.

The Scarborough School is a coeducational country day school for boys and girls and has been in existence for the last fifteen years. It has an enrollment of 300 pupils drawn from Westchester country as well as New York City.

rollment of 300 pupils drawn from Westchester county as well as New York City.

—Mr. Charles E. Varney of Rockland, Mass., has been reelected as head of the school system, at an increased salary.

an increased salary.
—Supt. S. E. Weber of Charleston, W. Va., has been reelected for a third consecutive term.

—Mr. Harry P. Cooper has been appointed assistant superintendent of schools at Minneapolis, Minn. Mr. Cooper was formerly principal of the Seward School.

—Dr. Herbert W. Lull, for 27 years superintendent of schools at Newport, R. I., has been given a doctorate degree by the Rhode Island College of Education. Dr. Lull is a graduate of Harvard University with the class of 1874 and is widely and favorably known in educational circles in the eastern states.

—Dr. J. R. Jewell, director of the education department at the University of Arkansas, has resigned to become dean of the State Agricultural College of Oregon at Corvallis. Dr. Jewell is succeeded by Dr. J. O. Creager of New York University. Dr. Jewell has had successful experience in the state education department of Wyoming, as principal of the State Teachers' College at Flagstaff, Ariz., and as a member of the faculty of the Arizona University.

—Dr. Ambrose L. Suhrie of New York University, who has been tendered the presidency of the Georgia College for Women at Milledgeville, will continue his work at New York University as the head of the division which offers courses for training administrative officers and teachers for normal schools and teachers' colleges. Mr. Suhrie is chairman of the committee in charge of the regional conference of normal-school- and teachers'-college officers and teachers held annually in April, in New York City.

—The Colorado State Teachers' College at Greeley, has established a department of freshman studies which will be in charge of Dr. Clare B. Cornell, formerly professor of educational administration and a member of the college faculty.

The work of the department will be mainly the selection, classification, and direction of studies for freshmen students, and will be largely in the form of vocational-guidance work. It will call largely for personnel work in which Dr. Cornell is a leader and an expert.

—Dr. Augustus S. Downing, formerly deputy commissioner of education for New York state, retired from schoolwork on September 1, after completing a half century of service. Other offices which Dr. Downing filled with credit were director of elementary education, director of higher education, and professional education. Dr. Downing is succeeded by Dr. James Sullivan, formerly assistant commissioner in charge of higher and professional education.

—Dr. Henry G. Williams has been appointed as president of Wilmington College, Wilmington, Ohio. Dr. Williams was formerly superintendent of schools at Marietta.

—Mr. Roy Noteware, formerly superintendent of schools of Wexford county, has been appointed assistant state superintendent of public instruction of Michigan.

—Among the new positions created by the school board of Lynn, Mass., are S. E. Burr to the office of director of research and guidance; Miss Alice Hughes to be supervisor of the grades; and R. W. Babb to be assistant superintendent in charge of business affairs.

—The school board at East Grand Forks, Minn., has elected Mr. R. L. Douglass president, Mr. F. R. Johnson, secretary, and Mr. Thomas Powers, treasurer.



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PUBLIC SCHOOL Nº 5. WEST HOBOKEN, N.J.



GREENFIELD HIGH SCHOOL PITTSBURGH, PA.



SIMMS SCHOOL HUNTINGTON W.VA

When choosing water closets for your school, remember that their flush valves are machines, subject to more abuse than any other mechanism in the building!

How well Haas Flush Valves withstand the constant stress and strain is evidenced by the fact that many of the original Haas installations, made more than thirty years ago, are still in daily use!

More important still, they have been rendering service all these years with an upkeep cost so slight as to be negligible.

Month after month goes by, and never a toilet closed down for repairs in the school that's Haas equipped. Think what this means in terms of good health and efficiency! WATER CLOSETS OF FLUSH VALVES



Haas Flush Valves have no complicated mechanisms, no small ports to clog, no needle-point adjustments, no metal-to-metal contacts that cause rapid wear. They are internally self-cleansing in all waters. Afford instant adjustment and positive control of flow and after-fill. Guaranteed five years.

Simplicity is the secret of the long life of Haas Flush Valves. They have no needle-point adjustments, nor metal-to-metal contacts to wear loose or cut through one another.

Replacement parts for any Haas valve ever made can, however, be had promptly at any time, should the need arise.

Haas Water Closets are of the same high quality and excellent design as Haas Flush Valves. For new buildings, we recommend the installation of complete Haas equipment. In older schools, however, Haas Flush Valves can be profitably substituted for the valves originally supplied on virtually any make of toilet.

There is undoubtedly a Haas installation near you. Let us tell you where to see it — now!



WILKINSBURG HIGH SCHOOL WILKINSBURG, PA.



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as the building itself.

The superior surface and durability of Beaver Blackboard do not conclude its advantages. The first cost, shipping expense, and application cost are surprisingly low. It comes in large, sturdy panels 3, 3½, and 4 feet wide and from 6 to 16 feet long—larger and lighter than slate or heavy composition boards. One man can quickly apply it with a worth while saving in time and labor—in new work or right over the old blackboard, brick, plaster, or wood.

Some of the finest schools the country over are equipped with Beaver Blackboard where its ex-cellent service and economy have won endorse-ment of school authorities, teachers, and archi-

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SAMPLES AND FOLDERS

Samples will prove its lightness, toughness, and fine writing surface. The folder "Better Blackboards" will tell you more about its advantages.

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# EAVER FIBRE BLACKBO

TWO COLORS ~BLACK AND GREEN



-Mr. Jesse L. Ward, the retiring school superintendent of Bucyrus, Ohio, has issued a statement

in which he makes the following remarks:
"For the savage and venomous attacks of a few who have dogged my footsteps practically during the whole of my residence here, and the additional worries and nervous strain that they added to those which naturally accompany the responsibilities of school administration, I am confident the community as a whole did not approve for on the part of nity as a whole did not approve, for on the part of the great majority I have seen the manifestation of the finest spirit of sympathetic cooperation, good will and the desire for fair play."

—Mr. Henry W. Foster, superintendent of schools in South Orange, N. J., recently retired under the state pension law. Mr. Foster has been succeeded by Mr. John H. Bosshart, who was formerly prin-

cipal of the high school.

—Mr. John A. McDowell, superintendent of schools of Ashland, Ohio, retired on September 1.

Mr. McDowell had completed 57 years of service in

—The salary of State Commissioner A. B. Meredith of Connecticut has been fixed at \$12,000.

-Mr. Roy F. Hannum, formerly principal of the high school at Ottumwa, Iowa, has been elected nigh school at Uttumwa, Iowa, has been elected superintendent of the school system, succeeding H. E. Blackmar. Mr. Frank W. Douma succeeds Mr. Hannum as principal of the high school.

—The teaching staff of the Bethlehem, Pa., schools presented the superintendent, William H. Weise, with a basket of rease and a deak set on

Weiss, with a basket of roses and a desk set, on the occasion of his fiftieth birthday.

—Mr. Frederick E. Downes, formerly superin-

tendent of schools at Harrisburg, Pa., has accepted the position of superintendent of Beckley College, Harrisburg. Mr. Downes was for the last four years district manager of the Hockenberry system.

-Miss Lillian Wallace, retiring principal of the McIntyre School, Philadelphia, was recently guest of honor at a dinner given at a local hotel by eighteen principals in Dist. No. 5. Miss Wallace had been in educational work since 1874 and had served as principal since 1877.

—Mr. J. F. Derr, principal and superintendent of schools of Tamaqua, Pa., for forty years, was a

guest of honor at a testimonial dinner given by the school directors and school-teachers of Tamaqua. Mr. Derr was presented with a gold watch and chain. Mr. F. G. Horner, formerly principal of the high school, succeeds Mr. Derr as superintendent,

-Mr. J. W. Cooper, superintendent of schools at Shenandoah, Pa., died in June, at the age of 69. Supt. Cooper had been associated with the schools for 34 years.
—Dr. John Griffin, a retired superintendent of

schools of New York City, died on September 3, after a long illness. He was 81 years old. Dr. Griffin served as a member of the Brooklyn board of education for ten years. In 1900 he was elected a district superintendent in which position he served for seventeen years. Upon his retirement in 1917, Dr. Griffin was given a testimonial banquet by the teachers, principals, and members of the

local school boards of the city.

—Supt. Harry D. Kies of Mankato, Minn., has entered upon his fifth year as head of the school

-Mr. Frank B. Gilbert, who retired as deputy state commissioner of education of New York state in 1926, died suddenly at his home in East Scho-dack, on Sunday, August 28. Mr. Gilbert was 60

Mr. Gilbert received his education in Hamilton College and was admitted to the New York bar in In 1893 he began his service with the state, when he became associated with the statutory revision committee. In 1901 he was appointed by the legislature to draft legislative bills, and later became state law librarian upon the organization of the drafting commission. Here he served until 1908 when he became chief counsel for the state education department, being promoted from time time until he became deputy commissioner in 1919. He became acting commissioner in January, 1921, upon the retirement of Dr. Finley. In 1926 Mr. Gilbert retired from school activities to devote his entire time to the writing of law books.

—Mr. Frank Pierrepont Graves, president of the University of the State of New York, has been awarded the Butler medal for conspicuous at-

tainments in educational theory and administra-tion. The medal was given to Mr. Graves in recog-nition of his having attained the attitude of a real student and of having made distinct contributions to education in the ten books he has written. He has been instrumental in having enacted basic state legislation for the better support of the public schools of the state and he has administered the state education department with due regard for technical efficiency and the highest professional technical efficiency and the highest professional considerations.

-Supt. W. M. Pierce of Ridgway, Pa., has been elected president of the central convention district of the Pennsylvania State Education Association. Supt. Pierce is a graduate of Fort Edward Col-legiate Institute, of the Illinois Wesleyan University, Grove City College, and Harvard University. He has been connected with the schools of Ridgway for the past 29 years.

-Mr. John W. Harbeson. dean of the Pasadena, Calif., junior college, has been elected principal of Pasadena High School and Junior College.

—Mr. Emmett Clark, formerly principal of the Kauffman Junior High School, Pomona, Calif., has

been elected superintendent of the Pomona school

-Mr. Ward W. Leis, formerly principal of the Ellen grammar school at Covina, Calif., has been elected district superintendent at Fontana.

-The California State Education Department has announced the appointment of nine division chiefs as a result of the reorganization of the department by legislative enactment. The heads of the department are as follows: Division of rural education, Miss Helen Heffernan, now commissioner of secondary education; division of city secondary schools, Nicholas Ricciardi, now commissioner of schools, Micholas Ricciardi, now commissioner of secondary education; division of adult education, Ethel Richardson; division of health and physical education, Mr. N. P. Neilson; division of research and statistics, W. E. Morgan; division of special education, Anita Muhl, M. D., San Diego; division of schoolhouse planning, Andrew B. Hill, assistant superintendent of schools, San Diego; division of teacher-training and certification, Evelyn A. Clement, librarian, Mr. Milton Ferguson, state librarian. ent, librarian, Mr. Milton Ferguson, state librarian. —Mr. Edwin C. Broome of Philadelphia, Pa., has

received a personal gift of \$5,000 from Thomas E. Mitten of the Philadelphia Rapid Transit Company, as an evidence of his continued interest in the work of this executive.

(Concluded on Page 120)



# The Public Service Paper Towel

is BEST and MOST ECONOMICAL for your washrooms, for these reasons:

ADE of specially selected paper pulp, this towel is firm, yet soft and absorbent when moist; it is almost cloth-like. One or two will dry the hands perfectly; they are economical.

The "hem" or doubled lower edge of the towel prevents wet hands from tearing it in withdrawing from the cabinet—this makes it convenient and precludes wastage from torn towels. No other make of paper towel has this "hem."

The PUBLIC SERVICE cabinet which is furnished with these towels has no mechanism whatever, thus is never out of order. The towels pass out through a slot, one at a time, each pulling out the edge of another into position for grasping. The system prevents wastefulness and aids economy.

Full information, including samples of cabinets and towels, and address of your nearest supplier, gladly sent on request

National Paper Products Company CARTHAGE, N. Y.

Public Service



# A Superb Cabinet

with Perfect Toilet Tissue

IN THE NEW NO-WASTE cabinet, with the perfect NO-WASTE toilet tissue, buyers will find a combination leaving nothing more to be desired, either in cleanliness and beauty or in economy.

The new cabinet is of steel with porcelain finish. The steel insures endless durability and freedom from breakage. The beautiful porcelain finish cannot be written on nor defaced. A damp cloth cleans off dust and dirt in a jiffy. The cabinet has no mechanism and can't get out of order. The paper is drawn out through a slot in double sheets, with just enough resistance to compel economy. The cabinet can be locked to prevent pilfering. The price is very reasonable.

NO-WASTE tissue is a perfectly clean



and sanitary paper, made from selected paper pulp. It is remarkably soft and absorbent, yet firm; will not tear. It is preferred by thousands of users. Efficient and economical.

# NO-WASTE TOILET TISSUE

Distributed by leading wholesalers in all principal cities. Details and name of nearest distributor will be mailed on request.

National Paper Products Company CARTHAGE, N. Y.

# A SHELDON CHEMISTRY TABLE **Accommodating Sixteen Students!**



(Concluded from Page 118)

-Supt. S. O. Rorem of Lebanon, Pa., has been given a \$500 increase in salary.

—Supt. S. E. Weber of Charleston, W. Va., has been reelected, with an increased salary of \$7,500. Mr. Weber has completed his third consecutive term as superintendent.

as superintendent.

—Mr. Thomas J. George, formerly superintendent of schools at Carnegie, Pa., was recently honored when a bronze bust of Mr. George was unveiled in the Carnegie High School. The bust was the gift of the high-school alumni to the high school and citizens of the community.

—Mr. W. H. Morton, formerly superintendent of schools at Beatrice Nebr. has accented a position

schools at Beatrice, Nebr., has accepted a position in the department of education of the state university at Lincoln. In his new position, Mr. Morton will be director of teacher-training work and will act as principal of the teacher-college high school.

—Mr. F. P. Buck will serve as superintendent of schools at St. Johns, Mich.

—Mr. Edward N. Dietrich of Geneva, Ohio, succeeds 1, Ward as superintendent of schools

ceeds Jesse L. Ward as superintendent of schools at Bucyrus, Ohio, at a salary of \$7,500 per year.

-Mr. Charles F. Miller, state superintendent of schools of Indiana, has accepted the city super-intendency at Indianapolis, succeeding Mr. E. U.

-Mr. H. M. Leinbaugh has been reelected super-intendent of the high school at Lewiston, Ill.

-Mr. E. D. Bloom, for the past three years at Twin Falls, Idaho, has been elected superintendent schools at Kemmerer, Wyo., at a salary of

-Mr. J. M. McDonald, who for the last four years was head of the Kemmerer, Wyo., schools, has been elected superintendent of schools at Pocatello, Idaho, for a two-year period, with a salary of \$5,300. Mr. McDonald is a graduate of the University of Missouri and the University of California, and holds a number of degrees given by the former institution.

-Supt. J. R. Cougill of Chariton, Iowa, has been at a salary of \$3,900, or an increase of \$300 per

-Mr. E. D. Harms of Augusta, Kansas, has accepted the principalship at Wellington.

-Mr. Murray M. Gilkeson has been elected as principal of the high school at Augusta, Kansas,

-Supt. F. M. Shelton of Springfield, Ohio, has been reelected for a term of four years, at a salary

of \$7,200 the first year, and \$7,500 thereafter.

—Dr. Frank P. Graves, state commissioner of education of New York, recently made a tour of the English schools and universities on the Con-

—Supt. Harold T. Lowe of North Providence, R. I., has been reelected at a salary of \$3,400 a year, or an increase of \$150.

The administrative division of the St. Louis schools has created the position of assistant in the division of personnel, with a salary of \$3,000 the first year, \$3,240 the second year, \$3,480 the third year, \$3,720 the fourth year, \$3,960 the fifth year, \$4,200 the sixth year, and \$4,400 the seventh year.

—New Rochelle, New York, has achieved distinction in the development of a substitute of the development of the developm

tion in the development of an educational and community personality which has been attributed to the remarkable leadership of Mr. Albert Leonard, who has been the superintendent of its school system for the last twenty years. Of the many tributes paid Mr. Leonard none was more significant than that of Mayor Badeau, when he says: "Mr. Leonard always has been most devoted to all that pertains to the schools. No detail of the educational system has been so slight that it has received less than his best thought. He has set an example of enthusiasm and high-mindedness which has inspired the teachers, and he has carried courtesy and dig-nity with him wherever he has gone. While Dr. nity with him wherever he has gone. While Dr. Leonard has been with us, the school system has expanded almost beyond belief and the educational standard has been raised until today one of our proudest boasts is of the efficiency of the schools. Much of the progress made must be attributed to Dr. Leonard's personal efforts, wise counsel, and sincere desire to see the New Rochelle schools rank among the best."

—Mr. S. W. Gentry, formerly of Princeton, W. Va., has been appointed superintendent of schools at Walnut Ridge, Ark., to succeed Mr. Henry H. Hill. Mr. Hill has resigned for a year of graduate work at Columbia as a fellow of the general education beard.

cation board. Mr. Willis M. Brewer and Mrs. Ruth C. Mac-Adams, president and secretary, respectively, of the board of education at Pontiac, Mich., for the past five years, voluntarily retired from membership at the expiration of their terms this summer. Mr. E. F. Oberlin and Mr. John F. Stewart were elected their successors.

At a meeting for the reorganization of the board, Mr. Otto Sachse was elected president; Mr. Albert Weber, vice-president; Mr. Coe C. Tillson, secretary; and Mr. John F. Stewart, treasurer.

### CHATS DURING RECESS

Under the heading "A Booby School Board" the Rock Island, Illinois, Argus says: "Indiana has more than its share of freaks, but the booby prize must be awarded to the members of the school board of Jeffersonville. This is the board that refused some time ago to let a little girl come to school because she wore knickers. The board lost out in this matter, and is now suing the child, her mother, lawyer, and bondsmen for a total of \$5,600, being joined in these legal proceedings by the teachers of the school. They complain that the school authorities have been exposed to public ridicule, and that the school has been demoralized in consequence. All of which goes to prove that the electorate ought to be most careful whom it places on school boards—particularly in Indisna. Members of such boards who have so little intelligence as to attempt to bar a little girl of 9 years from school because she wears knickers can expect little else but public ridicule. This particular board must crave publicity."

Newspaper Item: A law passed by the last Illinois state legislature says that a school teacher shall not be employed to teach in the same school for longer than three years. This is going to be pretty tough on some of the sisters, cousins, and aunts, who are given jobs by their relatives on the school boards.

-One hundred new playgrounds were established the past summer by the board of education of New York City, making a total of 307 locations maintained by the schools of the city for play and recreation.

—In stimulating an interest in the school-board election of Butte, Montana, a citizens' committee issued a statement in which the following policy is laid down: "We maintain that this is not a party issue; our candidates listed on ballots belonging to this or that party; school elections and school management are separate and apart from city and county affairs in this regard; that these separation was the result of mighty good judgment on the part of those who originated it, and we will endeavor to keep it separate."



Indiana Theatre, Indianapolis, Indiana

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In the lobby of Indiana's finest theater, the ornate plastering and polychroming stands as an unrivalled example of a newly elaborated art. Hockaday Paint, wisely selected as a priming coat, protects the huge outlay for walls and ceilings, and assures the preservation of the theater's beauty.

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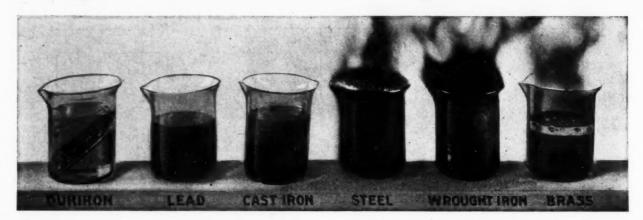
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# Why Drain Pipe Fails



The beakers in this photograph all contain Nitric Acid of the same strength and temperature, and its action is apparent, except on the Duriron sample. (Time of action two minutes.)

Test on Duriron, immersed in Nitric Acid for one hundred and twenty days, showed a loss of 7/1000's of 1%. With other acids, in varying degrees, the results are similar.

The first cost of Duriron drain pipe is higher than other materials but the first cost is the last.

This, plus protection to building from destructive leaking acid wastes, is why over a thousand high schools and colleges have installed Duriron acid-proof drain pipe from the laboratories. Duriron is installed the same and as easily as extra heavy cast iron soil pipe and passes all plumbing codes.

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DAYTON OHIO

## THE ST. CLOUD CONTRACT PLAN OF WORK

Supt. R. H. Brown of St. Cloud, Minn., has worked out a special scheme of classwork based on the "contract" used in the Dalton plan of individual instruction. The plan is cooperative in nature since it takes into account the teacher, the pupil, and the home environment. Under the plan, the objective is stated in the plan of study or work and a statement is given of the reason and value of the unit of work involved. Opportunity is afforded for the assignment of problems or projects that may be brought to the attention of the instructor by the class or by individual pupils. Opportunity is also given for tying up the home and home environment with the subject, and emphasis is placed on the necessity of making the subject the topic of conversation in the home so that the experiences of the family may be brought in for discussion in broadening the experiences of the pupils.

In describing the plan and its operation, Supt. Brown points out that it has a twofold purpose: It represents a statement of what the pupil may receive for his work; it offers a statement of the teacher's objective of the work involved; and lastly, it involves a statement to the home whereby the home environment may be tied up with the work in the pupils.

work of the pupils.

"During the past year," said Mr. Brown, "the greatest emphasis was placed upon the statement to the pupil, as to what should be required of him in order to obtain a certain grade. Undoubtedly, in many cases, this has led to the idea of working for marks only. The reaction was expected but without apprehension. While it is desired that students work and get out of their subjects things worth while to them in their life experience, yet this can be brought about only when there becomes a felt need on the part of the student of the subject matter.

"Toward the end of the last year, an attempt was made to emphasize the second phase of the plan, namely, the part affecting the teacher. After a selection of a unit of work had been made, the teacher asked himself or herself this question: Why am I teaching this unit of work? Unless there is a definite reason for teaching a unit of work on the part of the teacher, this unit as far as the teacher is concerned has no place in the schools. The objective which is stated in the plan of work

is a statement of the reason as well as the value of this unit of work in relationship to child life. If problems or projects are possible in relationship to the unit of work these should be stated in the plan.

"In asking the home to cooperate with the school, there is an opportunity for home problems to be stated. If experiments are to be performed either in the regular class period or otherwise, there should be a statement made concerning these. One of the most valuable helps in the plan of work is the suggestion which the forethought of the teacher will incorporate in the plan such as a suggestion of how to study, a suggestion for turning in written work, and a suggestion for attacking research problems. The assignment from the textbook should be stated carefully; the library references should be divided into parts.

should be divided into parts.

"The grading of the student's work brings in teachers' judgment and involves his whole work whether we think of him as the student reciting, the student doing research work, or doing written work. The teacher should be careful in analyzing the fundamentals involved in any unit of work as the basis for grading.

"Much work can be done by each individual in his or her particular field to obtain standards by which to give a grading of C. For a grade above B, the work should be above the average and should show a broader experience in relation to the unit of work as a whole, as well as a broader knowledge of the fundamental principles and their application. For a grade of A there must be superior work with broad application to the principles involved in the unit of work.

"The third phase of the plan is that of tying up the home and home environment with the subject. This is the most difficult part of the whole plan and should draw forth both favorable and unfavorable comments on the plan. An important feature of the plan is how to make the subject the topic of conversation in the home so that the experiences of the older members of the family may be brought in for a general discussion in order to broaden the experience of the students. It should be possible to obtain from the various publishing houses a preannouncement statement of the articles appearing in the magazines from month to month. These announcements may be placed on the bulletin board in the library and used by the teachers in stimulating home reading and home discussion. Every

topic of the day can be made of value in this particular form of work. The problem of linking up the home with the school will be found one of the most difficult to solve. Though parents are willing to cooperate, it is a matter that should be handled with considerable care. A brief outline of the topics in each contract is as follows:

Unit of work
Period of time
General objectives
Specific objectives
Problems, general and specific
Home problems
Experiments
Suggestions to students
Textbook assignments
Library references, general and optional
Grading C grade, B grade, and A grade
Home interests
Topics in current magazines
Topics of general interest with suggestions for stimulating interest
Books of fiction pertaining to the work
Reference books
New books involving questions on the work

#### SCHOOL BOARD NEWS

—The school board of Tulsa, Oklahoma, denied the local law school permission to use the high school for night classes. Complaints made during the last year that classrooms were left in untidy condition by the law-school students caused the board to take the action. It was said that cigaret butts, peanut shells and waste paper were carelessly thrown about the floors by the students.

—The teachers of Minneapolis, Minn., have decided to renew their fight for salary increases. Miss Florence Fish, publicity representative, and John A. Wilson, chairman of the salary committee of teachers' organization, argued that the Minneapolis scale is lower than in other cities, and that teachers are going elsewhere because of the schedule here. The average income of other wage earners is higher than for teachers, in spite of high educational requisites for teachers.

—Baltimore, Md. A division of maintenance and operation was established in April, 1927, which is under the direction of Mr. Charles A. Mohr, formerly superintendent of construction for the public improvement association. The latter association is a public body in charge of munic:pal building problems, including schoolhouses and public works.

SCIENCE ROOM, HOPE STREET HIGH SCHOOL, PROVIDENCE, R. I. KEWAUNEE LINCOLN LABORATORY DESKS.



# These Lincoln Science Desks Increase Pupil Capacity

These new Lincoln Science Desks are solving the problem of many schools—that of increasing the pupil capacity of present buildings. We guarantee them to do that—as well as offering many other advantages.

#### Many Other Advantages

With the Kewaunee Lincoln Desk, no lecture room is required. All students face the instructor while doing all the work in one place.

The instructor may give demonstrations or hold class recitations in the same room with the experimental work.

No definite periods need be set for demonstration and laboratory work.

The desk permits the instructor to give a lecture, demonstration, or discuss any difficult phase of the experiment during the laboratory period.

With equal ease a demonstration can be stopped by the instructor at any time and the students permitted to follow out individual laboratory experiments.

Where the science work of the entire school does not cover the entire period of the school day, the desk can be used as a regular classroom desk. This avoids vacant rooms and helps to cut down the cost per room in new buildings.

#### Used in the Lincoln School

These desks are used in the Lincoln School of Teachers College, New York City, New York; University High Schools at Ann Arbor and Iowa City, and in other prominent schools, where the highest educational standards are desired.

Before you make plans for future laboratory equipment, ask us for our catalog of Lincoln Science Desks.



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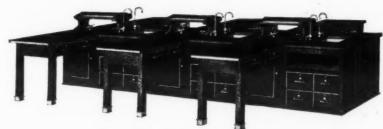
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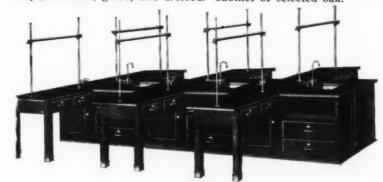
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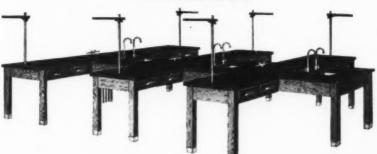


Science Desk No. 8030

12 ft. 2 in. by 6 ft. 9 in. by 33 in. high. Top of narrow birch strips, matched, glued, and dressed. Cabinet of selected oak.



Science Desk No. 7045



Science Desk No. 7059



**Monday Morning** 

# You Don't Need to Wait Till Vacation Time!

Over the week end you can now free your students from the handicap of scarred, cut-up desks.

Cut-up, scratched desk tops put classes under a handicap. They can't write well on such uneven surfaces—the cuts, digs, scars, and scratches take their minds from study. Are you going to let your students suffer under these handicaps until vacation time comes around?

Don't wait—do it now! Let the Clarke Vacuum Portable Sander completely refinish—make new—120 to 200 of those battle-scarred desk-tops a day. Without any dust, too. The varnishing man can follow close behind the CLARKE. Varnish dries over Sunday. Monday morning—shining, smooth desk-tops await your classes.

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You will get pretty vague answers when you start after the low down facts.

What does your standard of cleanliness cost, measured in labor—in electric current—in cleaning apparatus—in brooms—in time?

If you are using brooms, are you not wasting both time and labor? If your cleaner is in the basement, how much high-priced energy is being eaten up by friction in long lines of piping and hose?

Are you paying for much more time, for more "juice," and for more expensive apparatus than the job demands?

School board members and managers cannot side-step these questions; they mean too much in health as well as money. Most of them are trying very earnestly to find the right answers to them.

We want to help you—provided your standard of cleanliness is high enough. The more you demand the bigger the saving we can show you.

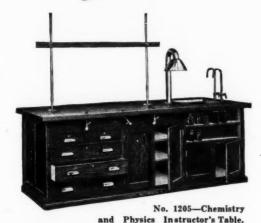
The Super Service is a cleaner especially designed for school use. To be of value—or interest—to you, it must do better work at much lower cost than any other cleaner now known to you. Investigate—write us today.

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# WASHINGTON CORRESPONDENCE A. C. Monahan, Formerly U. S. Bureau of Education

W. S. Deffenbaugh, chief of the city-school division, of the U. S. Bureau of education, just completed a study on recent movements in city-school systems of interest to school-administrative offices. It will be published in the Biennial Survey of Education.

Among the various items discussed are recent movements in the improvement of teachers in service, sabbatical leaves, teachers' councils, visiting teachers, publicity, the all-year school, individual instruction, etc.

An experiment in individualizing instruction from the board of education of Montclair, N. J., is of interest. The experiment was made to determine the relative effectiveness in arithmetic and spelling between the more formal, traditional method and one adapted to individual differences and personal needs. The one is described as the formal method and was used for a period of four months, and the other is described as the self-directed method and was used for three months. In each the personnel of the class was the same and was under the same teacher. The Stanford achievement test was used as a criterion to evaluate the results of the experiment. It was found that much greater gain had been made under the self-directed plan.

Some of the conclusions reached regarding the self-directed or individual method were:

1. The interest of the children in the work was largely spontaneous. They felt a keen need for further knowledge. They eagerly applied themselves to the work. They asked for more books

to read and asked for more work in arithmetic.

2. The success of each child received recognition, often in graphic form. One of the greatest motives for further effort, for adults as well as children, is the satisfaction of accomplishing a given task successful.

cessfully.

3. A difficulty met was a challenge to each child to think, independently, or cooperatively with a self-selected group. Often his approach to the teacher was an inquiry if his original method of solution was correct.

4. Each child was actively making an effort during a much longer proportion of the time than under the more formal, traditional plan of instruction

5. In the discussion of the results and methods of others the pupils were learning to weigh advantages and disadvantages and to come to the conclusion of a judgment. Thus they were helping to determine their own methods of study; and they were frankly criticizing each other.

6. Anyone who is having the experience of such frequent discussion of his methods and results, free and frank and yet under the kindly control of the teacher, is developing an attitude that will enable him to face adverse criticism more intelligently.

him to face adverse criticism more intelligently.
7. It is only fair to all children to let each progress at his own rate.

8. With the greater variety of opportunity for each individual more abilities have the chance for

expression.

9. In individualizing instruction there is always the query: Is not real social intercourse eliminated entirely? In this experiment actual social intercourse and cooperation occurred to a far greater extent than under the formal classroom procedure.

10. The degree of achievement was greate; under the self-directed than under the formal procedure.

#### District of Columbia School-Supplies Delivery

The new plan for the purchase and delivery of school supplies, established in the District of Columbia this year, has worked satisfactorily. All schools had their necessary textbooks, equipment, and supplies on hand before the opening day of the school year.

Under the details of this plan, advertising for bids was put out in the winter and general contracts awarded. In April, each principal placed his requisition with the superintendent's office. Purchases were made in May, and all supplies were delivered in June or July to the school board's warehouse.

On August 1 deliveries to the individual schools began. Each principal was notified to be at his building on a specific day to receive supplies, or to have a representative for him present. The driver of the delivery truck left with each principal, or his representative, the original requisition form from his building. This he checked over immediately after the delivery. Within twenty-four hours he sent a written report to the superintendent in charge of business affairs, acknowledging receipt of all supplies requested, or stating any discrepancy or shortage.

The August delivery will be followed by another general delivery in the middle of the school year for such additional supplies as may be necessary at that time. Of course, arrangements are made in the plan for emergencies that may arise during the year and which could not be foreseen. The great bulk of material, however, for the schools are all included in this August delivery. Textbooks and janitors' supplies are included, as well as ordinary school equipment.

#### Opening of Schools and Teachers' Meetings

In order to insure readiness on the part of all teachers for the first day of the school year, the District of Columbia follows the plan of having teachers begin service on Friday morning preceding the Monday on which the school actually opens. All teachers are required to be present at teachers' meetings, held by the principals and supervisory Officers, at 10:00 o'clock on the preceding Friday. September pay status for the month of September is dependent upon teachers reporting for services at that hour.

At the teachers' meetings, all general matters relative to the opening of schools are taken up and each teacher obtains the necessary textbooks and supplies for her class. In this way everything is in readiness for the pupils when they report Monday morning.

# Department of Superintendence Meeting, February 25, 1928

A local New England committee is making unusual preparations for the annual meeting of the Department of Superintendence to be held in Boston, February 25, to March 1, 1928. Particularly active on this committee are representatives of the public-school system of Boston, state department of education, and the eastern Massachusetts colleges and universities.

This committee is planning an exhibit to be staged throughout the week by pupils and teachers throughout eastern Massachusetts. They have organized also, pilgrimages to points of historic interest such as Bunker Hill, Lexington, Concord, Plymouth, and Salem.

President J. M. Gwinn, superintendent of schools in San Francisco, has announced that the program will feature problems in the secondary-school field, since the 1928 Yearbook of the Department of Superintendence has to do with the high school. A joint meeting of the Department with the Na-

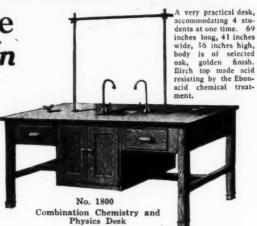


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tional Association of Secondary-School Principals is scheduled for Tuesday evening.

The attendance at Boston will be unusually large. Over 6,000 sleeping-room reservations have already been made by the members of the Boston Hotel Association. Those who plan to attend the convention should communicate with the chairman of the housing committee, J. Paul Foster, of the Boston Chamber of Commerce.

Exhibits at Boston

Architects of proposed civic auditoriums might do well to study the arrangement of the Mechanics Building on Huntington Avenue, Boston, which although it has done service for approximately fifty years still remains ideal for exhibit purposes. The exhibit space and the auditorium are immediately adjacent. For the meeting of the Department of Superintendence, the arrangement is such that those who attend the general sessions will naturally pass through the exhibits.

adjacent. For the meeting of the Department of Superintendence, the arrangement is such that those who attend the general sessions will naturally pass through the exhibits.

Three floors of exhibit space are available. Special attractions on each floor will equalize values of locations. "A live exhibit" in which will be demonstrated actual teaching methods with real teachers and live youngsters will be operated in cooperation with the school people of greater Boston. Continuous showings of films will be another new feature. Many of these will show educational projects as developed by state, county, and city-school systems. These will be shown on regular schedules, so that visitors will find some interesting activity in operation at the Mechanics Building whenever they may visit it.

Prospective exhibitors will be interested to know

Prospective exhibitors will be interested to know that the official announcement probably will be released on Monday, November 14. The plan of release is such that exhibitors whether located in Baltimore, Chicago, or San Francisco will receive the announcement simultaneously.

National Education Association—1928—

Minneapolis
With the selection of Minneapolis for the 1928 summer meeting of the National Education Association, the association is assured of ideal convention conditions. The new municipal auditorium is said to be "the last word" in auditoriums. The auditorium has a seating capacity of 10,545, and is amply supplied with committee rooms. The exhibit hall has every convenience needed. The building can be kept at a constant temperature of

seventy degrees regardless of the temperature out-

The Minneapolis local committees are actively at work. Housing arrangements are being planned and meeting places arranged for. Hotels and meeting places are well centralized and the physical conditions for the convention have not been surpassed by those of any city in which the association has met

Special conditions made it necessary to suspend exhibits at the two most recent summer meetings. Such suspension has been a disappointment to members of the association and to exhibitors. It gives unusual satisfaction, therefore, to note that the summer exhibits can be assumed under ideal conditions.

Department of Superintendence and Superintendent McAndrew

The office of the Department of Superintendence, of the National Education Association, at Washington, has collected information concerning Superintendent William McAndrew's case in Chicago, some of which it has distributed to member superintendents.

In gathering the information, it obtained the opinion of leading Chicago citizens familiar with the school situation and in a position to know whether McAndrew's suspension was due to inefficiency or to politics. The Department is not concerned with personal issues between school authorities and superintendents of schools. It is concerned, however, with doing what it can to keep the school system, its teaching staff and officers, free from political influence. It is doing this primarily by helping create a public opinion which will prevent mere politics from entering the school situation. To do this it attempts to obtain facts in regard to the situation where a superintendent is dismissed through what seems to be political motives and gives its findings to the members of the association.

Personnel Changes in the U. S. Bureau of

Education

Eustace E. Windes, associate specialist in rural education for the past five years, has resigned to accept a position in the education department of the University of Virginia. Mr. Windes has become particularly well known because of his work with the National Committee on Secondary Education.

Walter H. Gaumnitz, a graduate of the University of Minnesota, and formerly in charge of social-science work in the State Teachers' College at Madison, S. Dak., has been appointed associate specialist in rural education, to take the place vacated by Mr. Windes.

William M. Robinson, associate specialist in rural education for three and a half years, has resigned and accepted a position with the Western State Normal School at Kalamazoo, Michigan.

#### PERSONAL NEWS

—Dr. Charles H. Elliott, dean of the school of education at Rutgers University, New Brunswick, New Jersey, has been appointed state commissioner of education to succeed Dr. J. H. Logan.

Dr. Elliott was educated in Illinois and received his bachelor of arts degree from McKendree College. He has received degrees also from Columbia University.

Dr. Elliott joined the Rutgers University faculty in 1915 and had since that time served as professor of education and dean of the school of education. He first became identified with the state schools in 1926 when he was appointed a member of the state board of education. He was at one time professor of education and director of the training school at the North Carolina University. He is a member of various state and national educational associations.

Dr. Elliott. entered upon his duties on September 1.

tember 1.

—Mr. E. L. Terman of Mansfield, Ohio, has been elected superintendent of schools at Monroeville.

—Mr. A. W. Clevenger, who was recently appointed state high-school inspector for the University of Michigan, was formerly superintendent of schools at Wakefield. The division of university inspection will be under the direction of Dr. J. B. Edmonson of the University staff.

—Miss Helen M. Hazen, a school supervisor at Elizabeth, N. J., has joined the staff of the state education department at Trenton.

—Mr. John E. Byrnes, business manager of the Chicago board of education, recently began his 31st year of service with the Chicago schools. Mr. Byrnes entered the service in 1896 at a time when the appropriations of the board for each year amounted to \$7,006,100. In 1927 the appropriations reached a total of \$77,043,400.

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(Concluded from Page 52)

The building cost a total of \$704,388 distributed as follows: General contract, \$568,600; plumbing, \$24,697; heating, \$35,498; electrical work, \$15,379; ventilation, \$17,937; temperature control, \$9,477; pipe covering, \$7,275; curtain and bleachers, \$22,895; electric program clock system, \$2,631. Furniture, fixtures, equipment, and architects' fees not included in

THE SENIOR HIGH SCHOOL AND JUNIOR the above bring the cost to \$788,000. The heat-COLLEGE AT MUSKEGON, MICH. ing plant for the entire group cost \$154,000. ing plant for the entire group cost \$154,000.

The plans for the buildings were prepared by Messrs. Turner & Thebaud, architects, Grand Rapids, Michigan.

#### THE JANITORIAL-TRAINING METHODS FOR THE ST. LOUIS SCHOOLS

(Continued from Page 63)

interest in the schools and builds up a feeling of ownership and pride in the whole enterprise of education.



CAFETERIA, SENIOR HIGH SCHOOL AND JUNIOR COLLEGE, MUSKEGON, MICH.

#### Mutual Aid Provided

The educational class is the place of meeting for the interchange of ideas and good fellowship as well. The organization of a Mutual Aid Society, limited in membership to the custodians, has been of great value in cases of sickness and death. The death of a member is always marked by visits of a committee, by the sending of flowers, etc., attendance at the funeral, and a memorial resolution at the session following the death. After so many years of this close contact and help from the officers, the men have come to trust them and depend upon them for whatever help they may want. Every effort has been made at proper times to adjust the salaries so as to have the compensation correspond to the high class of service the men are rendering. No men in the city doing similar duty receive as high salaries as these men, yet there are no schools in any large city that secure such service for as low a cost as the St. Louis schools. This is made possible by the educational training so that the engineer is also custodian and, with the skill he possesses, is able to accomplish more with less effort.

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(Concluded on Page 133)

# OPEN IT IN A SECOND

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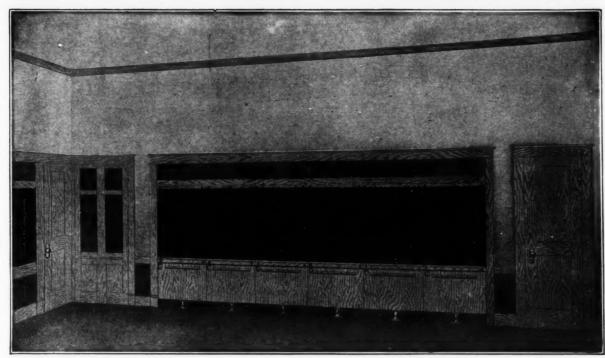
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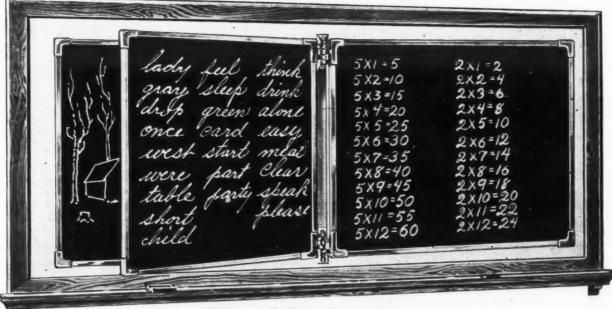
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(Concluded from Page 128)

ment. Relief of the men on account of sickness is provided by a group of trained, senior men who ordinarily care for the board's office building and these are sent on call. The old men, who are no longer able to assume the responsibility of managing a school building, are assigned to the high schools as assistants. No retirement or pension system is in vogue.

The accumulation of old men in the high schools indicates a very high state of health and longevity among the employees of the board. The peace of mind due to the system of tenure is valuable to the board as well as to the employees. Many will see in this method of handling the labor of school-building service an explanation of the great satisfaction expressed with reference to the comfort and economy in the management of the schools. The high regard for the welfare of the custodian force is the same as that of the school children and teachers.

# A CONCRETE METHOD FOR A LOCAL FINANCIAL AND BUILDING SURVEY

the reason? From here on the results depend upon the ingenuity of the superintendent. The facts are at hand, the causes must be ferreted out.

Before the study is laid aside to cool one more effort should be made. The district should be compared with other districts of similar size. Generally the state reports can be made to supply sufficient information for some comparisons. Larger or smaller districts can be used for comparisons by reducing all to a common denominator, that is, getting per pupil costs. It is the per-pupil cost that is the real cost.

The methods outlined are very rough but as a beginning exercise will present sufficient problems for the novice. Methods may be refined

from year to year and once the ground has been gone over the gathering of material will be a much simpler process next time. The large discrepancies will appear in this study and the details will come with refinement.

Such a survey, if made up in pamphlet form and distributed among the voters, will produce considerable interest and appreciation. At least it is one step toward scientific knowledge that every superintendent needs if he is to conduct his system efficiently.

The next step will probably be an educational survey in order to determine true costs or product costs.

#### STANDARDIZING THE MANAGEMENT OF HIGH-SCHOOL ATHLETICS (Concluded from Page 66)

enumerated by principals as marks of good treatment. Fourteen schools say they have received the very best treatment everywhere. The blame for the lack of good treatment is placed by seven principals upon a careless indifference of those in charge of the home team. Whatever may be said of the question of hospitality, it behoves the principal and superintendent to be fully worthy of the name host.

The principals are strong in the conviction that scholarship in high schools has been raised by advancement of athletics. The vote stands 33 to 19. Thirty-five principals rank their athletes in the middle group of graduates. Fifteen place them in the upper third.

Nine principals say that 90 per cent or more of their men make good in college. Eight say that 75 per cent make good; three say 50 per cent; four say 25 per cent, and one says 2 per cent.

The vote on public games in basketball for girls was almost a tie; 30 for and 27 against. The larger high schools disfavor it One principal says it is below the dignity of the girls to

play in public competitive games. Another says: "I respect girls too much to subject them to such a cheapening process."

There are other principals on the contrary just as ardent in promoting competitive basket-ball for girls as for boys. With a woman as coach and with girls' rules of play, a high standard of fitness and refinement may be maintained. Most schools are not as yet equipped to afford visiting girls an exclusive rest and shower room, and most officials for boys' games are not familiar with girls' rules of playing. So there is much to be done to elevate girls' basketball. It is hoped that some one will take up this problem of competitive basketball for girls and work it out. Steps toward this end are now being taken in Indiana.

In compiling a summary of the present study a few likely steps forward may be added in the form of propositions:

- A smoother working plan between large and small schools.
- A codification of I.-H.-S. A. A. rulings.
   The effects of tournament on the nervous
- system.
  4. A more widespread uniformity of awards
- in athletics.
  5. The correct number of competitive games in each branch.
- 6. A lower age limit.
- 7. The observance of honor day in all branches of extracurricular activities with as much distinction for any one as for athletics.

—The Alton, Ill., consolidated school district, in a report for the last three years, shows that the tax levy has remained unchanged, but, while the district in 1924 could raise \$72 per pupil enrolled, it last year could raise only \$69 per pupil enrolled. This represents a loss in taxing power of \$3 a pupil last year as compared to 1924, and, as there was an enrollment last year of 5,816 pupils, the financial pinch totaled \$17,448.

### A Longer School Term

Bertha Y. Hebb

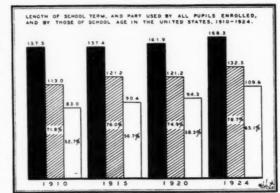
In the beginning of the public-school system the schools were open practically all the year around. In Chicago, the term was 48 weeks in length; in Philadelphia, 251½ days; in Boston, 224 days; in Washington, 238 days; in Detroit, 259 days; and in other cities of which there is record the term was correspondingly long. Gradually, however, the summer vacation increased, until now the generally accepted term is but nine months in length.

In the belief that the long summer vacation is a detriment to the child, many cities have lengthened their school terms from 9 to 10 months. To continue the schools for this additional month could be done with but little cost; it would result in an actual saving of money to the taxpayers, in that children could doubtless finish the grades in seven years instead of eight; and most important of all it would take over one month of the summer vacation in which many children have nothing to do but loaf about the streets.

Many cities, of course, have summer-school sessions of one month to six weeks in length; but these are intended only for children who are unusually bright and who put in the extra time in order to skip a grade, or for those who are behind in their studies and who take the course in order to keep up with their classes. What then is to become of the merely normal children, those who are neither slow nor unusually bright, during the long summer months?

In order to take care of all the children all the year around, some cities have gone back to the original plan and have organized all-year schools. Among these cities is Nashville, Tenn., where the schools have been operating upon the plan for several years. The superintendent of schools of Nashville says concerning the short school term and the duty of the schools to the child: "The child is out of school more than seven times the amount of time that he is in school. If the home will not, or does not, use this spare time for giving the child real training, then the school must perforce assume the whole training of the child and use this spare time."

The popularity of the all-year plan in Nashville is attested to by the enrollment and the attendance. Thirteen thousand children were enrolled for the summer course last year, in spite of the fact that the enrollment for the summer term was voluntary, with an average attendance of 94 per cent, and a punctuality of 99.78 per cent. Five and six-tenths more of the pupils were promoted at the end of the summer term than were promoted at the end of the regular term, and 86 per cent of the teachers elected to teach during the summer term.



INCREASING LENGTH OF SCHOOL TERM AND ATTENDANCE.

The superintendent of schools of Nashville further testifies to the value of the plan: "Better results through continuous occupation were attained in all those things regarded as of prime importance in the training of the child-regularity, punctuality, attention to duty, contentment, cheerful obedience to authority, health of body, mind and soul; that it is possible to shorten the time of preparation for productivity, not only without hurt to the individual but with positive advantage to him, to his country and to the world at large; that the all-year school will contribute to the common defense against impairment of strength, and that ultimately it is destined to be the American system of education."

The chart1 presented above gives (see black column) the average number of days (exclusive of holidays) that the public schools were open in the United States for the years 1910, 1915, 1920, and 1924; and, as of additional interest, the middle column shows how well the pupils enrolled used this school opportunity, in that it indicates the average number of days attended by all pupils enrolled for the years enumerated, and states the per cent of the school session used by those enrolled. The white column shows how well those of school age made use of the educational opportunity. It reveals the average number of days attended by all children of school age, that is, 5 to 17 years of age inclusive, and states the per cent of the school session used by those of school age. The length of session has increased for the country as a whole about 11 days in 14 years, the increase in time used by those enrolled is about 20 days, and by those of school age about 30 days per year. Of course this increase varies in the individual cities, being much greater in some and much less in

'From Phillips' "Graphic View of Our Schools."

# A Peculiar School Tilt in Indiana

The Indianapolis, Indiana, board of education dropped E. U. Graff as school superintendent and appointed Charles F. Miller to succeed him. Mr. Miller at the time of the appointment was the Indiana state superintendent of public instruction. Before resigning his state office, however, he exacted the condition that his successor in the state office be selected in harmony with the policies he had previously inaugurated and fostered.

The governor, who had the appointment of a successor in hand, differed with him and appointed Roy P. Wisehart, superintendent of the Union City schools. It was said that Miller wanted Fred T. Gladden, who held the position of first assistant in the state department, appointed as state superintendent. The attorney

general held that when Miller accepted the appointment as superintendent for the Indianapolis schools, he had automatically passed out of the state office.

The legal tangle which threatened was found in the claim that Wisehart could not assume the state superintendency until Miller had formally resigned. In fact Miller refused to surrender the office to Wisehart. Then came the question so far as the city of Indianapolis was concerned of having chosen a school superintendent who held two jobs. Was he city superintendent or state superintendent or both? The situation prompted the Indianapolis News to say:

"But the really important feature of the affair is the nature of the school superintendency of Indianapolis. Is Mr. Miller filling—or trying to fill—two offices or only one office and one job? The subject is involved in some confusion since positions that are admitted by all to be offices have also been looked on and treated as jobs. As to this particular case, we do not believe that the people of Indianapolis want as school superintendent a man who is also state superintendent of public instruction. The school board might very properly require Mr. Miller to elect which place he will hold, and discharge him—or ask for his resignation—if he chooses to continue state superintendent. It is not the school board's business who is superintendent of public instruction, but it is very decidedly its business to put the Indianapolis schools in charge of a full-time superintendent."

After a controversy which lasted nearly a month during which Miller and Wisehart became acquainted with each other and learned one another's policies the former agreed to resign and peacefully surrender the state office.

From the general statement of the case it would appear that Superintendent Miller had carried his zeal to the point of presumption when he chose to dictate the choice of a successor. In all probability, however, Mr. Miller felt that he was elected upon an issue and that the governor in appointing a successor should respect the policies involved in that issue. In holding to this viewpoint he demonstrated his loyalty to the cause of education as it concerned the state of Indiana. A governor of a state may not recognize the finer shades of school administration policies when he engages in a stroke of practical politics.

The Indianapolis News says:

"It is understood that Miller, whose election was attributed somewhat to the support of forces opposed to the county unit system of education, regards Wisehart as one of the strong proponents and supporters of the county unit and that he wishes assurances that Wisehart will not attempt to promote this system in his term as state superintendent."

On the other hand it must be assumed that when a man lays down one office in order to assume another he engages in nothing that will smack of divided allegiance. The school system of Indianapolis in selecting Charles F. Miller sought a high class educator and is entitled to his full time, energy, and wisdom.

# WHAT SOME SCHOOL-BOARD MEMBERS THINK OF THE MICHIGAN CODE OF ETHICS

(Concluded from Page 43)

other positions. When one better is found, they pretend it came unsolicited and as a surprise, and ask the board to release them because of the better position. We usually do so, regardless of the facts, unless it be too late to secure another teacher."

One school-board member waxed sarcastic: Said he: "This should be added to the Michigan code of ethics: 'A school board should be elected and it should be their duty to make levies and raise funds to run the school, and the amount should be sufficient to pay all the bills as they come in. They should issue warrants to pay for the coal, teachers' salaries, and so on, but the management of the school should be left entirely to the supervising teachers, such as hiring the teachers, fixing the salaries, buying all supplies, showing the board all applications of teachers who are their particular friends and with-holding applications from others no matter how much superior they are to the ones submitted. In fact, when the matter is boiled down, the duties of the board should be to supply the money and turn the rest over to the teaching staff, no matter how much they are lacking in business judgment!"

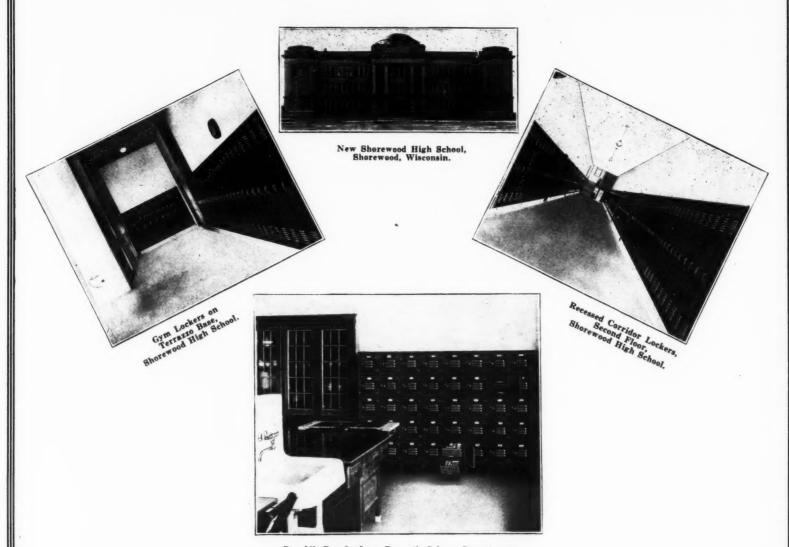
—The school budget for Hamden, Conn., has been fixed at \$393,000. This is an increase of \$34,000 over last year mainly due to an increase in salaries.

—A tax levy of 12.75 mills was made by the school board of Marysville, Kans. The total levy will raise a total of \$52,609.27. The general levy of \$10.93 mills will raise \$45,103.27, the bond-interest levy of 1.07 mills will raise \$4,412 and the sinking-fund levy of .75 mill will raise \$3,094.





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### MEETING OF THE WORLD FEDERATION OF EDUCATION ASSOCIATION AT TORONTO, CANADA

(Concluded from Page 40)

or. Dorian Feigenbaum, Vienna, Austria. Or. Eugene Shen, China. Or. S. Tsuchida, Imperial University, Tokio, Japan. Or. Erich Hylia, Deputy Minister of Education in

Dr. Hylia told the conference that there existed in Germany a new spirit of unity and willingness to cooperate with the other peoples of the world and that a great change had taken place in the school life of Germany. These, he said, were the outstanding features of a new

The place of meeting of the Third Biennial Conference of the World Federation of Education Association has been tentatively selected to be Geneva, Switzerland, in 1929.

The last general session of the conference was a farewell meeting held Friday night, August 12. It was the climax of a day in which three general sessions of the delegate assemblies had been held. It was a fitting climax too to a week of tremendous import in the educational world. The president, Dr. Thomas, reviewed the work of the conference. Dr. E. A. Hardy acknowledged what the conference meant to Canada. Messages of hope for the future success and influence of the World Conference were given by distinguished delegates. While the teachers of the world in mutual sympathy and understanding sang "Auld Lang Syne," they formed a human chain symbolic of the "tie that binds" in their united and common efforts to drive out ignorance, prejudice, and hatred and to establish instead knowledge and understandi universal peace. This final meeting of the conference had a most dramatic ending when Professor S. Tsuchida of the Imperial University of Tokio in his native tongue expressed the indebtedness of Japan to the federation and his indebtedness to the Canadian teachers for their unstinted hospitality and friendliness. He concluded his peculiarly fitting remarks with the famous Japanese "Banzai Banzai." Thus the second biennial conference of the federation closed its General Sessions.

It was the universal opinion of all the delegates that the World Federation of Education Association is destined to become a most powerful agency for the promotion of world-wide peace through the education of childhood.

#### THE DAILY PROGRAM OF THE HIGH SCHOOL

(Concluded from Page 47)

study of schedules. To do this it was found necessary to record each schedule on a uniform blank. This was easy with most schedules, but some schedules could be understood only after considerable study of the schedule in connection with the courses of study from that same school. But after considerable effort had been put forth, 158 schedules had been recorded with a high degree of accuracy. These 158 schedules included 22 five-period schedules, 39 six-period schedules, 61 seven-period schedules, and 36 eight-period schedules. A comparative study of these schedules showed conclusively that practice has discovered nothing in regard to a best arrangement of subjects in the schedule.

We are, however, not justified in concluding from this that no preference exists with regard to subject arrangement; but simply that schedulemakers have found no such preference. This may be due to a failure on the part of schedulemakers to give this matter consideration. The schedulemaker has a very difficult task. It is of prime importance that his schedule be able. And he finds himself confronted with so many factors that when he finally has succeeded in producing a workable schedule, he is satisfied to let well enough alone, even if his product is not the very best that could be obtained. Even if the schedulemaker is willing to consider the matter of best subject arrangement, it is likely that he is unable to properly consider it. He is not in a position to satisfactorily measure the relative advantages of the various locations for the different subjects. If there exists any such relative advantage, it will have to be determined by means of systematic measurements, and is, therefore, more logically a problem for experimental psychology to untangle.

Conclusions One outstanding fact is brought out by this study: High schools differ greatly in their manner of using the school day. This expresses itself not only in the length of the school day employed, but also in the number of periods used, as well as in the length of these periods. It further finds expression with regard to dismissal for lunch, in the practice of the holding of general assemblies, as well as in a variety of other factors. These variations in practices are desirable when they are brought about in response to differences in conditions. And that schedulemakers are indeed responsive to specific surroundings is shown by the tendency of schools in the east half of the standard-time zones to commence earlier in the morning than those in the west half of the zones. But it is difficult to find justification for most of the extreme practices. Where a comparatively large number of schools has adopted the same practice with regard to a given feature, it is reasonable to conclude that such agreement is not accidental, but is the result of experience. Schedulemakers should, therefore, find it profitable to check their schedules against the prevailing practices as exposed by this study, and any schedulemaker finds his schedule differing extensively from the prevailing practices in the schools of his class, he should consider modifying his schedule unless he is able to justify such disagreement on the basis of peculiar conditions surrounding his specific ×

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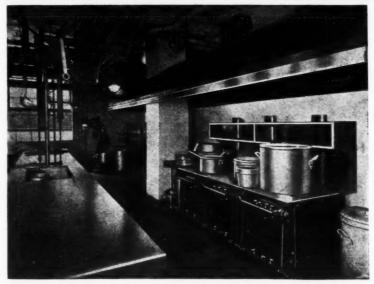
Pratt Institute, Brooklyn, New York. Changed from coal to Vulcan. Installation by L. Barth & Company, New York.



Metropolitan Club, Washington, D. C. Vulcan installation by Fulin & Martin, Inc. Washington.



Franklin High School, Los Angeles, California. Vulcan installation by Northwest Gas and Electric Equipment Co. of Los Angeles.



Vulcan-equipped kitchen in John Jay Hall, Columbia University

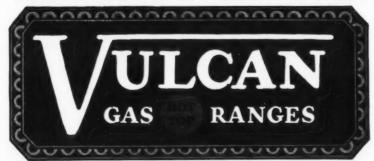
FROM their first boarding school lunch to their final university blow-out, more and more young men and women are eating Vulcan-cooked foods. More and more of our famous clubs, demanding and commanding the best of everything, are installing Vulcan Hot-Top Gas Ranges in their kitchens.

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Hartford Club, Hartford, Conn. Another of the many clubs that use the Vulcan Hot-Top Gas



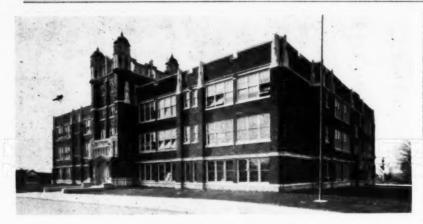
Racquet Club, Chicago, Ill. Vulcan installation by B. Gloekler Co., Pittsburgh, Pa.



The Surf and Sand Club, Hermosa Beach, California. Magnificent clubhouse. Vulcanequipped.







Francis D. Raub School, Allentown, Pa.

Jacoby & Everett, Architects, Allentown, Pa.

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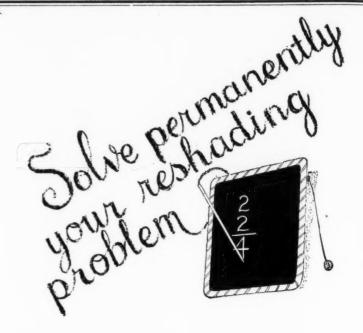
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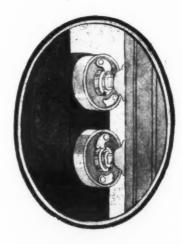
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#### TWENTY MILLION DOLLARS FOR ALABAMA SCHOOLS

The Alabama legislature has passed a bill, which authorizes an election in January to amend the constitution providing for the issuance of bonds for school buildings to the extent of \$20,000,000 and setting aside one mill of the state tax for general purposes, as a special fund to pay interest and to retire the bonds.

The bill provides that each county is to receive \$200,000 of the funds provided, or \$13,400,000 for the 67 counties, and the remainder, \$6,600,000 is to be divided among the normal schools, the University, Auburn and Montevallo, and other state schools dependent on the legislature for support.

# PER-PUPIL COST OF EDUCATION AT PORTSMOUTH, VIRGINIA —Supt. Harry A. Hunt of Portsmouth, Virginia,

in a recent report, offers a table and description of the per-pupil costs of education in the schools for the school year 1926-27. The table gives the costs per pupil based on the total enrollment for the year as follows:

	Cost of	Entire
	nstruction	Cost
White high-school pupils	\$62.39	\$74.53
White elementary pupils	41.60	49.26
All white pupils	46.80	55.39
Colored high-school pupils	26.66	31.81
Colored elementary pupils	21.10	26.86
All colored pupils	21.92	27.59
All pupils	36.51	43.90
The costs per pupil based on		daily at

tendance are as follows:		
Cost of	Entire	
Instruction	Cost	
White high-school pupils \$76.51	\$91.40	
White elementary pupils 48.19	57.17	
All white pupils 56.02	66.87	
Colored high-school pupils 31.06	37.58	
Colored elementary pupils 25.26	31.13	
All colored pupils 26.16	32.10	
All pupils	52.17	

It is brought out that Portsmouth has a ranking of 161 in per-capita cost of schools in a compara-tive study of 166 cities of 30,000 to 100,000 population. It is shown that 160 cities spent a greater amount per capita for schools than Portsmouth, and that 5 spent a lesser amount. The highest city spent \$27.27 per capita, the lowest \$5.84, and

Portsmouth \$6.44. In the per cent of the city revenue spent for school purposes, Portsmouth ranked 128 among the 166 cities, which means that 127 of these cities spent a larger per cent than Portsmouth and 38 cities spent a lesser per cent. The highest city

ERS

spent 62.2 per cent for school purposes, the lowest 21.5 per cent, and Portsmouth 39 per cent. The ranking of Virginia and North Carolina cities in the group of cities of from 30,000 to 100,000 population is as follows:

		Let Ce	ant City
	Per-Capita Cost of Schools		venue
Greensboro, N. C			er cent
Lynchburg, Va	. 10.45	34.1 p	er cent
Charlotte, N. C	. 10.06	43.9 p	er cent
Roanoke, Va	9.72	42.5 p	er cent
Winston-Salem, N. C	. 8.88	45.8 p	er cent
Wilmington, N. C		41.2 p	er cent
Durham, N. C		42.5 p	er cent
Petersburg, Va			er cent
Newport News, Va			er cent
Portsmouth, Va	. 6.44		er cent

In the table below are given the relative rank of the eight larger Virginia cities in respect to per-pupil cost of instruction, together with the figures for the one ranking highest, lowest, and for Ports-

	~	Total
	Cost of	Per-Pupil
	Instruction	Costs
Danville	8	8
Lynchburg	7	6
Newport News	3	3
Norfolk	1	1
Petersburg		4
Portsmouth	5	5
Richmond	2	2
Roanoke		7
Highest per-pupil cost of inst	ruction	\$44.5
Lowest per-pupil cost of instr	uction	31.5
Highest per-pupil total costs.		
Lowest per-pupil total costs		
Per-pupil cost of instruction i		
Per-pupil total costs in Portsu		
DITH DING	MEWO	

#### BUILDING NEWS

—Hamilton, Ohio. The school board will present the matter of a school-bond issue to the voters at the November election. The board expects to erect a number of fireproof school buildings at a cost of \$1,150,000. The buildings will be provided with equipment costing \$150,000.

—The school board of Cleveland, Ohio, will place

a \$1,500,000 bond issue before the voters at the coming November election. The bond issue will permit the board to proceed with its plans for the erection of four new schools and the purchase of sites for two further buildings.

-Little Rock, Ark. A new million-dollar-high school has been completed.

-Portsmouth, Va. The Robert E. Lee School was opened for school use during the past year. The school is three stories high, contains sixteen classrooms, and cost \$125,000.

-Chicago, Ill. Four new school buildings were occupied with the opening of the fall term. Two more schools, one the Lucy Flower Technical High School, will be completed shortly. The Barry, Locke, and Twain schools cost \$500,000 each, the O'Toole cost \$550,000, and the Clark \$150,000.

-Cleveland, Ohio. Three new standard schools were completed and occupied with the opening of were completed and occupied with the opening of the school year. The buildings were erected from identical plans. Each building has thirty classrooms to accommodate 1,250 pupils, and each cost, with furniture, approximately \$540,000. The board estimates that it has saved \$140,000 on the construction of these standard buildings. Economy in construction, the use of identical plans, and the elimination of "dead" space, has produced buildings which are the most economical erected in recent years, according to Mr. G. M. Hopkinson, school architect.

—New York, N. Y. Two new elementary schools costing a total of \$1,305,400 and seating 3,677 pupils, have been contracted for by the board of education. One building will be erected in the Bronx and will seat 2,329 pupils. The other will be erected in Brighton Beach and will second. be erected in Brighton Beach and will accommodate 1,348 pupils.

-Tampa, Fla. The school board has completed a school-building program involving more than \$1,000,00 during the last year. Five new schools have been completed since the opening of the 1926 school year, three of which were completed during the summer months. The largest and most impor-tant of the new buildings is the Henry B. Plant High School, which accommodates 1,600 students and cost \$386,747. The Franklin Junior High School was erected at a cost of \$225,000, the Broward School at a cost of \$120,900, the Cleveland School at a cost of \$128,000, and the Orange Grove School at a cost of \$127,000.

—Findlay, Ohio. The board of education has adopted a budget calling for an expenditure of \$374,536, which is \$14,000 less than last year.

-North Milwaukee, Wis. The school board, in reparing its budget for the new school year, has included an appropriation of \$10,000 to be added to the \$10,000 voted in 1925 as a sinking fund for school purposes.

-The board of education at Wyandotte, Michigan, has taken steps toward installing a budget system for the new fiscal year. 

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#### COST-TENDENCY CHARTS APPLIED TO CITY SCHOOL WORK

(Concluded from Page 48)

actually sees in connection with his cost figures. For all purposes it is sufficient until the necessity arises to investigate abnormal conditions.

The possibilities and scope of these charts are much greater than I have indicated here. The cost-tendency chart is particularly suitable for use in connection with vocational- and technical-school operations, where costs are fluctuating to a greater extent than they do in other school departments. In experimental work, such a chart is a real necessity if proper control is to be exercised. It is a good thing to be able to find a satisfactory answer to the question, "Where are we?" but it is still a better thing to be ready with an answer when we are asked, "Where shall we be if this continues?" Cost-tendency records is the answer to this problem.

#### BURNING QUESTION OF THE SCHOOL BOARD

(Continued from Page 58)

nary fire brick at the point of impingement. Such high-grade refractory materials are costly, but, wherever they are used they have proved cheap in the long run. Maintenance cost of the furnace wall is reduced to a remarkable extent. It is easily appreciated that a new lining in the combustion chamber costs considerable, even though only a few brick must be replaced.

The second point of consideration is the building of the furnace walls. Granted that we have selected the proper refractory for the work at hand and the expense is of some moment, we shall have thrown the cash outlay to the winds unless the refractory is economically placed in the wall. One of the outstanding faults with many furnace walls is that the joints between bricks is laid up with too much fire clay between. I have seen such walls with a quarter inch of fire clay in the joint, which is, of course, entirely beyond reason. Such walls will have a very short life and will prove very unsatisfactory. The proper way to lay the wall is to select a fire clay of equal characteristics similar to the brick and then mix this clay to the consistency of thick cream. Each brick should be dipped into the clay and laid directly in the wall. The trowel is not used except to trim the wall.

Construction of a Wall
The modern and successful furnace is made up of several different materials. For example, the refractory itself is so laid up that it carries no load except its own weight. The function of the refractory is entirely to resist the deteriorating influence of the flame. Also, the refractory is laid in the wall in the form of a lining that can be removed or repaired without molesting the balance of the wall. Therefore, it takes the form of an inner lining tied into the furnace wall proper by header bricks at frequent intervals. Thus, the furnace wall carries, in part at least, the weight of the refractory. The refractory is generally backed by a cheaper grade of fire brick, and then a good insulating brick is laid on the outside between the last course of brick and the steel plates of the

It is not intended in this article to give explicit instructions for bricking up the furnace, but merely to point out the importance of careful supervision when the work is done. It generally pays to place the bricking of the boiler furnace in the hands of a mechanic thoroughly familiar with the essential problems and one having the patience to see that every brick is laid in its proper position with respect to adiacent bricks. It should be borne in mind that future maintenance of the furnace will be in

proportion to the thoroughness of the initial installation.

It is important that the mistake is not made of utilizing fire brick for the function of insulating the furnace. The refractory is in reality a poor insulator, and the furnace will operate more economically if proper insulation is used in the construction. It is necessary to take into thorough consideration points of impingement of the flame on the refractory and to use at these points even a higher-grade refractory for a long-life furnace.

#### FACTORS IN FIXING MAXIMUM TEACHERS' SALARIES

(Continued from Page 62) prejudice and custom; (b) economic and financial reasons; (c) value of service (estimated but not proved). We find also that deliberate

discrimination against women, and length of service are not parts of the answer.

Through an investigation of the reasons for the establishment of the Massachusetts custom of higher salaries for men teachers, it has been shown by analysis that the reasons are not good ones, and it has been shown that the custom of higher maximums for men was established without the consideration or the influence of any new element or principle affecting the relative size of teachers' salaries as between the men and the women. The legislated maximums changed the custom not at all in the important matter of relative size of salaries of men and

It is sound judgment, then, to decide from all of the foregoing considerations that the method of reasoning, so far as any reasoning was employed, in the establishing of higher maximum salaries for men than for women teachers was unscientific. It is evident that the conclusion was reached by a modicum of

(Continued on Page 142)

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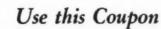
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(Continued from Page 140)

SALT LAKE CITY

thought simply because the various suggestions leading to the conclusion were interesting and because they were in line with what the school committees wanted to believe. Guided only by custom, precedent, expediency, and prejudice, they were led to untested inferences to a conclusion which had only a fifty-per-cent chance of being right. They might just as well have tossed a coin, or arrived at their conclusion from the observation of the flight of birds as the ancients did.

As affecting the Revere problem arising from the report of the salary committee this study, which is to include the investigation, report, and recommendations of the superintendent of schools, should and will disregard the common custom of higher salaries for men teachers in Massachusetts cities, and will interest itself only in establishing the truth in regard to the best policy for Revere to adopt in order to do justice to the teachers and to safeguard the welfare of the city. It will be treated openmindedly as a new problem.

#### Effect of Increased Salary Scale

Exclusive of manual-training teachers, supervisors, etc. (these groups being excluded from this tabulation because each group has a separate salary maximum), there are in Revere 149 elementary teachers, 60 junior-high-school and 39 senior-high-school teachers, a total of 248. These groups are composed of men and women as follows: elementary, no men and 149 women; junior-high-school group, 9 men and 51 women; senior-high-school group, 9 men and 30 women -a total of 18 men and 230 women. The combined junior- and senior-high-school groups (men are found in these groups only), have 18 men and 81 women. The number and the per cent of the teachers in each group who are now receiving maximum salaries are as follows:

Women	Number	Per cent
Elementary group	. 54	36
Junior-high-school group		51
Senior-high-school group	. 14	47
Men		
Elementary group	. 0	0
Junior-high-school group	. 4	44

Senior-high-school group.....

The report of the teachers'-club salary committee recommends increasing the elementary school maximum to \$1,800, an increase of \$200; the junior-high-school maximum to \$2,000, an increase of \$300; and the senior-high-school maximum to \$2,300, an increase of \$400. The report recommends that these new maximums be attained by annual automatic increases of

Based on a consideration of the number of teachers receiving maximum salaries (the present maximums—elementary \$1,600, junior high school \$1,700, and senior high school \$1,900), the total amount of first-year increases would be: elementary schools, \$5,400; junior high schools, \$3,000; and senior high school, \$1,900; a total of \$10,300.

If the recommendations of the salary committee were adopted by the school committee the beginning of the fourth year after the adoption of the recommendation would see all of the senior-high-school teachers who are now on maximum, and still remaining in service at that time, receiving the new maximum salary of \$2,300. Under like conditions the beginning of the third year would see the corresponding junior-high-school teachers receiving the new maximum of \$2,000, and the beginning of the second year the elementary teachers of corresponding group receiving the new maximum of

The adoption of the salary committee plan would result in two years in an approximate increase of \$12,100 for elementary teachers, \$9,400 for junior-high-school teachers in three years, and \$8,200 for senior-high-school teachers in four years.

The teachers'-club salary-committee report contains data which show that the present maximum salaries in Revere are lower than the median of the maximum salaries of the 39 Massachusetts cities. They are considerably lower than the average of the maximums of the 39 cities. Because of the fact that Revere is a suburban city adjacent to Boston a comparison of Revere's salaries with those of the metropolitan area is of more significance than a comparison that involves all of the 39 cities of the commonwealth. As is shown, in part, by the salary-committee report, further substantiated by additional data, the difference between Revere maximums and the maximums paid in the other suburban cities is greater than in the comparison involving all Massachusetts cities.

NOTE:—In the concluding section of his report Mr. Mc-Ginnis takes up eleven factors in an adequate salary sched-ule. This will appear in the November issue of the JOURNAL.—Editor.

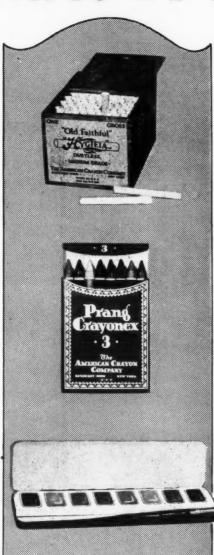
—The board of education of Ponca City, Okla, has asked for \$375,000 for school purposes for the ensuing year as against \$303,969 expended last

-The tax rate of \$1.60 on the \$100 valuation was officially fixed by the board of education of Kansas City, Kans. The rate was guided by the total valuation of the school district which was placed at \$142,513,252, and with the 16 mills will produce \$2,280,212.01.

-The school levy for the South Bend, Ind., school year for 1927-28 will remain unchanged at \$1.07\forall despite expected increases in school expenditures which threaten to exceed the budget of \$2,173,-The reorganized school board, with Samuel B. Pettingill as president, Frank Mayor, Jr., as treasurer, and Dr. Richard B. Dugdale as secretary, has decided to retain \$1.02 for school purposes and 51/2 cents for library support, but no increase in the

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Nature Trails

By Dietrich Lange. Cloth, 262 pages. Published by D. Appleton & Company, New York.

The author proceeds upon the thought that nature affords the student a wonderful field for observation, investigation, and enjoyment essential to a well-rounded life. He not only takes his readers into the forest and mountains but into farm lands as well. He emphasizes the haunts of bird life and the trails frequented by wild animals. He stops to explain about wild flowers and berries, trees and birds, rivers and streams. The book is handsomely illustrated.

illustrated.

Stone's Silent Reading, Book V
By Clarence R. Stone. Cloth, 290 pages. Price,
92 cents. Published by Houghton Mifflin Company,

This book excludes oral reading and confines itself to selections that stimulate silent reading. The author defines silent reading as a means of establishing permanent, various and desirable interests in reading and cultivating attitudes and habits towards efficient reading.

The selection of material is well made. Many of

The selection of material is well made. Many of the articles are fresh and new and deal with a great variety of subjects intended to hold the interest of a modern reading constituency.

The author prefaces his work with some twenty pages of instructions to teachers. The illustrations which are drawn by Billie Chapman, are made in outline and colored in red and blue tints.

Boy's Book of Experiments
By A. F. Collins. Cloth, 315 pages. Price, \$2.
Thomas Y. Crowell Co., New York, N. Y.
A boy's book of experiments intended to illustrate interestingly the principles of physics and chemistry. quite inclusive and entirely informal.

**Arithmetic Practice** 

By Arthur R. Jensen. Paper, 124 pages. Published by The Macmillan Co., New York City.

This book provides 98 diagnostic lessons and 98 practice lessons for use in the sixth grade in connection with McMurry and Benson's Social Arithmetic. The material is adapted to use with any text and provides a splendidly treated series of problems for drill and for remedial practice work. The ma-terial has been tried out.

Coping-Saw Work

By Edward F, Worst. Cloth, 134 pages. Price, \$2.40. Published by The Bruce Publishing Company, Milwaukee, Wisconsin.

The author here presents a manual which suggests to the teachers of the elementary and middle grades, problems in coping-saw work and toymaking that are attractive and educative. In large pages, with drawings that are bold and distinct a variety of new projects is presented.

of new projects is presented.

These drawings cover one-piece toys, jointed animals on movable joints, mechanical toys, parallel movement toys, dollhouse furniture, toy vehicles, bird houses, and kites.

Mr. Worst, who is the director of manual training and elementary construction work in the innion

ing and elementary construction work in the junior high schools of Chicago, has borne in mind the economies that should be observed. The working equipment required in following the studies he has outlined require but little expense thus bringing

outlined require but little expense thus bringing it within reach of all who desire it.

The work, when properly followed leads to originality on the part of the pupil. He learns to make his own drawings and to do his own coloring. In this way he is led to more advanced work in the upper grades. The chief purpose is to give teachers an idea of what fourth- and fifth-grade pupils are capable of doing, with the hope that they will become interested in this intensely attractive line of work for boys. work for boys.

The Reorganization of Mathematics in Secondary Education

A report of the National Committee on Mathe matical Requirements. Cloth, 181 pages. Price, \$1.20. Published by Houghton Mifflin Company, Boston.

This report was originally issued in 1923 in a ment led to a large demand for the same and prompted its republication. The present volume is designated as Part I, but is said to contain all the essential material embodied in the original report.

It deals with the aims of mathematical instruction and the general principles that must guide. One chapter treats the mathematics for years seven,

eight, and nine, while another takes up a discussion on mathematics for years ten, eleven, and twelve. College entrance requirements receive careful attention

Conditioning Gymnastics
By S. C. Staley. Paper. Price, \$1. Published by A. S. Barnes Company, New York, N. Y.
This publication has been written by an author well qualified by training and experience to undertake the preparation of a work of this character. He has had considerable experience both as an instructor of physical education in high schools and structor of physical education in high schools and colleges, as well as an instructor in the army dur-

ing the war.

The method he describes was first adopted by the French and comprised part of the natural physical-training program originated and developed by an instructor in the French naval academy. As used in the army during the recent war, it was used in the army during the recent war, it was

used in the army during the recent war, it was called "trench exercises."

The booklet comprises floor, stooping, erect, and double exercises which are well suited for school use. They may be adapted for physical-training exercises from the kindergarten through the college, and used either as a part of the regular program or as a means of conditioning athletic teams. The material was gathered and printed in book form to satisfy a demand for this kind of material. The material may be improved and amplified as time and use demonstrate its practicability.

time and use demonstrate its practicability.

Nature Study and Science
For intermediate grades. By G. H. Trafton.
Cloth, 367 pages. The Macmillan Co., New York.
This text outlines a complete series of lessons in
(a) plant and animal life and (b) the simplest elements of a wide range of general science. The
projects are well within the children's abilities, and
the entire material is interesting and teachable. the entire material is interesting and teachable

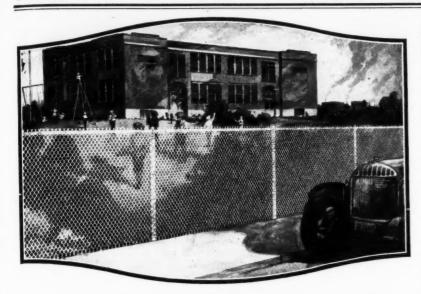
School-Building Problems

By G. D. Strayer and N. L. Englehardt. Cloth,
697 pages. Price, \$5. Published by Teachers College, Columbia University, New York.

This work is a radical and a welcome departure

average professional text on school administration. It is a casebook, or problem book, in which the authors present 109 typical problems in school-building planning, construction, utilization, financing, etc., and provide the readers with a series of assignments and a list of references to guide them in working out solutions. The very

(Continued on Page 146)



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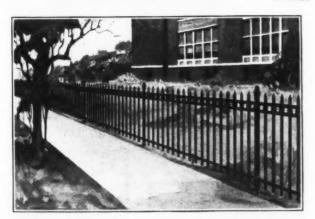
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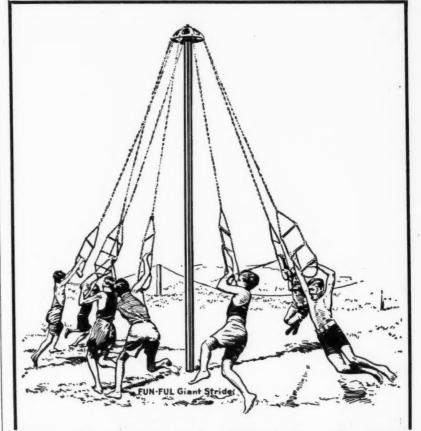


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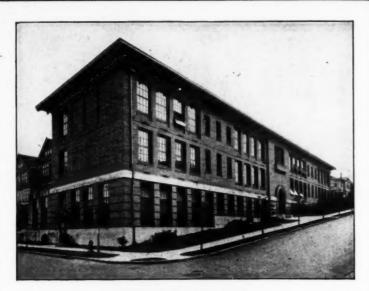
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(Continued from Page 144)
The problems which the authors present range from population studies to graphs for publicity, and cover quite comprehensively the entire field. There naturally will be some disagreement concerning the problems themselves, and there will be many satisfactory solutions—dictated by circumstances in addition to the colutions which the stances—in addition to the solutions which the authors hint at as correct. The chief benefit then, to be derived from the book lies in the types of the problems, and in the form in which they are drawn up and discussed.

Scaramouche
By Rafael Sabatini. Edited by Max J. Herzberg.
Cloth bound, 464 pages. Price 92 cents. Published by Houghton Mifflin Co., Boston.

This is a historical novel dealing with the French revolution, and is the most popular of Sabatini's writings. In this reprint the book is made suitable for use in the schools by being added to the Riverside Literature Series. The editor supplies explanatory notes making it possible to understand better the several characters and the spirit of the times when the great revolution was enacted.

Juan and Juanita
By Frances Courtenay Baylor. Cloth bound, 300

pages. Price, 80 cents. Published by Houghton Mifflin Company, Boston. This story is deemed sufficiently meritorious to be included in the Riverside Literature Series. It is based upon facts and tells of the adventures of two Mexican children. It breathes the atmosphere of that interesting country to our immediate south, and holds the reader's attention from beginning to

rhe Magic Clothes Pins

By Maude Duggon Lynch. Cloth bound, 106
pages. Price, 80 cents. Published by Houghton
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This is a children's book, happily presented and
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The books are clearly not literary in flavor, but they are varied, fresh, interesting, informational, and splendidly adapted to the purposes in hand. Careful attention has been given to grading them down to children's abilities as well as interests. The teacher's aids in the shape of directions, suggestions test outlines are almost too fulcome. gestions, test outlines, etc., are almost too fulsome. The readers will amply supplement any general basic series.

#### The Organization and Administration of Playgrounds and Recreation

By Jay B. Nash, cloth bound, 547 pages. Price Published by A. S. Barnes and Co., New York. Here is a comprehensive treatment of the sub-ject of playgrounds and recreational activities. The methods of organization and administration are thoroughly covered. The author provides the historic background and explains which playgrounds have come into vogue in city life. He points out the recreation objectives, and describes

just what provisions should be made to attain them. The function of the municipality is discussed, and the manner of organizing a recreation department is told. The author here discusses the question of just what city department should become responsible for recreation activities. The manner of organizing an efficient system is outlined.

The book provides much helpful material for all lose concerned in the subject.

It seems to the reviewer that the inconclusive and unsatisfactory chapter of the book is that devoted to the objectives of play and recreation. If we understand the chapter aright the author believes that play and recreation are largely educational in their objectives, that they may be sum-

marized in the expression: the full life—the good His explanation of a full life is largely that of health, good citizenship (as the measure of character), work, and the right use of leisure. These are excellent, but it would seem that more is necessary for a well-rounded life, that includes intellectual, spiritual, and religious activities. Some of the old medieval ideas of the value of play and recreation might be well applied by the author in order to round out his philosophy for an abundant

Experimental Science
Book II. By J. G. Frewin. Cloth, 112 pages.
Price, 50 cents. Oxford University Press, New

This book takes up the elementary principles of chemistry and physics of water, and magnetism with special reference to the electromagnet.

Algebra Test
Columbia Research Bureau Series, Forms A and
B. By A. S. Otis and B. B. Wood. Specimen set,

20 cents. World Book Company, Yonkers, N. Y. These tests are planned to provide a final examination in first-year work. Real problems, such as may occur in ordinary life, are stressed. Part as may occur in ordinary life, are stressed. Part I of each form consists of 20 equations to be solved; Part II is made up of 20 problems for which the equation and the value of the unknown are to be determined.

Physiology and Human Life
By Robert A. Budington. Cloth, 426 pages, illustrated. List price, \$1.65. Silver, Burdett & Co., New York City.

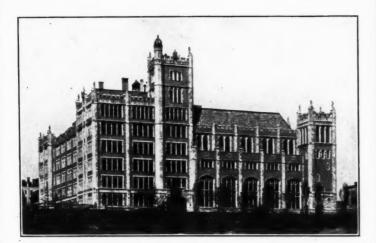
New York City.

This book follows, in the main, Conn and Budington's "Advanced Physiology and Hygiene" which has been a popular high-school text during the past eighteen years. So little of the original text results of the original text results. mains, however, and so much new matter, and so many new illustrations have been added, that the new title is fully justified.

The author proceeds on the old established principle that an understanding of healthful living and the normal use of the body, its organs, muscles, nervous system, etc., is the most important objecive of physiological study. After tory facts on the living material of the body, he plunges into such matters as food, its uses and values, digestion and absorption of food; the blood, the heart, and the circulatory system; breathing and the lungs; the excretory system, the skin; the

(Concluded on Page 148)

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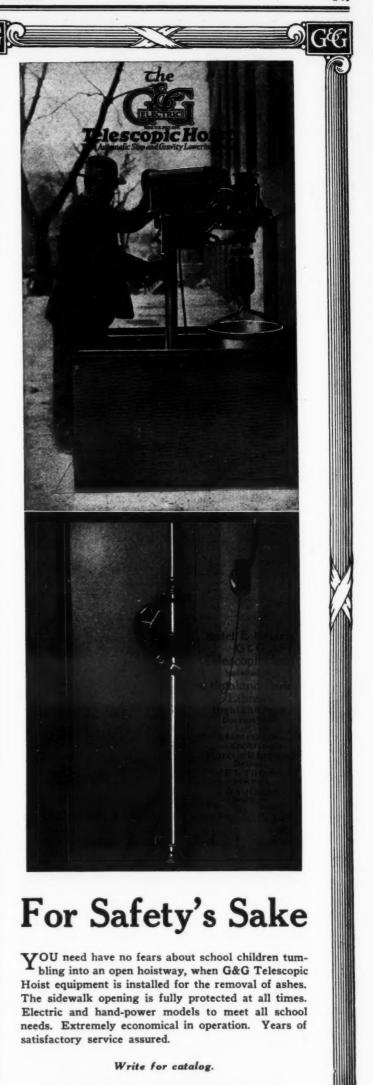
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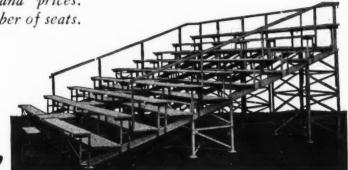
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skeleton; the muscular system and its development; the nervous system and its hygiene; the organs of special senses. Final chapters take up problems of personal and public hygiene. The entire book is conservative in viewpoint, in-

terestingly written, and quite fully illustrated.

Hygiene and Sanitation
By Jesse F. Williams, M.D. Cloth, 344 pages.
Price, \$2. W. B. Saunders Co., Philadelphia, Pa.
The present book offers for women college students and women teachers the fundamentals of hygiene and sanitation. It is built along the central idea of modern health care, emphasizing particularly the maintenance of health in the home and ularly the maintenance of health in the home and the school and the prevention of disease. Among the special topics covered are personal hygiene, the health care of children, health care in disease, health care in the home, and health care in industry and in the nation.

To make the book more practical there are sets of questions and answers, collateral readings, and

tabulations and charts for reference.

The book will be found useful to women teachers since it offers a well-founded, mature discussion of healthful living that is practical for everyday use and helpful for reference in the teaching of health. The chapter on the health care of children will be found especially valuable as a guide in the classroom, since it involves those important essentials that relate to the sanitation of the schoolroom and the health care of the growing child.

Brave Dogs
By Lilian Gask. Cloth, 160 pages. Price, \$1.50.
Published by Thomas Y. Crowell Company, New

This book consists of a collection of ten true stories about dogs and their faithfulness to man. One story is about a dog who was a gallant friend, one is about a faithful dog, one is about a hero of the Marne, and one is about a dog who was just

plain and homely.

The book is well printed and is illustrated by a series of drawings in color by Dorothy Hardy.

#### New York Experiments with New Type Mod

Language Tests
By Ben D. Wood. Paper, 339 pages. Published
by the Macmillan Company, New York, Chicago.
This booklet represents the first of a series of
studies to be issued by the Modern Foreign
Language Study under the auspices of the Ameri-

can Council on Education. The material consists of three studies all based upon the application of objective language tests which have been constructed according to technics tried out during the last four years by the Columbia College Research Bureau for testing achievement in the modern languages.

The first paper in the booklet describes the results of tests applied to students of French and Spanish in the junior high schools of New York City; the second gives the results of similar tests in French, German, Spanish, and physics in the examinations of the Regents of the State of New York; and the third gives the results of a second survey of achievement in French and Spanish in the New York junior high schools.

The three studies open a field of inquiry of great importance and indicate results which are funda-mental for modern-language testing. The possi-bilities of the new type tests which have been given a rather severe tryout are efficient for ascertaining the true situation regarding achievement and place-ment in the junior high school and for measuring the same features in the college-preparing schools of the state. The author has had a rare oppor-tunity to make a searching study of the old and new types of tests and to study their efficiency as tools of measurement. Teachers of foreign lan-guages are urged to familiarize themselves with the terminology which the use of statistical methods involves

#### **Everyday Electricity**

By Joseph R. Lunt. Cloth, 297 pages, illustrated. Published by the Macmillan Co., New York City.

This simple experimental outline of electricity is adjusted to the needs of science courses in the junior high school or the early years of the four-year high school. The broad range of the subject is covered with surprising completeness. Ample suggestions are made for experiments and studies. It would seem that the author has not fully considered the desirability of constructional work of

sidered the desirability of constructional work of prevocational or exploratory value.

#### THE RELATIONSHIP OF VOCATIONAL TEACHERS TO THE SCHOOL SYSTEM

In the official organ of the Nebraska State Board for Vocational Education, Mr. C. A. Fulmer, state director, argues that vocational teachers are as much a part of local school systems as are academic teachers and as much under the direction of the superintendent of schools and the board of education as any instructor in the school system. Mr. Fulmer points out specifically the following relationships which govern teachers:

1. All business matters such as contracts, agreements and reimbursements are transactions between the state board for vocational education and the school board.

The state director represents the state board and the superintendent of schools the school board.

3. The state director and his associates will always recognize the superintendent of schools as head of the system of schools  $including\ {\tt departments}$ or classes approved for aid from Smith-Hughes funds. Such departments or classes are under the jurisdiction and supervision of the superintendent of schools the same as any other departments or

4. The teacher of vocational subjects is employed by the school board under the same conditions as other teachers in the corps, except that his qualifications and salary must be approved by the state board.

5. The teacher's relations to the superintendent, principal, other officials and the community, are the same as those of any other teacher in the corps except as stated in the following paragraph.

6. The teacher is subject to certain requirements of the state board as to the use of his time, the subjects he teaches, personal reports to the state board, methods of instruction, etc., but these requirements in no way conflict with the requirements of the local school officials.

7. The teacher does a special work for the school according to certain plans and policies agreed upon by state and local school authorities.

8. The superintendent and principal will of course cooperate with the special teacher in every way to make the work successful.

9. The special teacher will of course cooperate with his superiors in office and his associates in every possible way in order to upbuild his own department and the entire school system.

10. The loyalty of the teacher to school officials. the esteem and good will of all concerned which he is able to win will measure his success as a vocational teacher.

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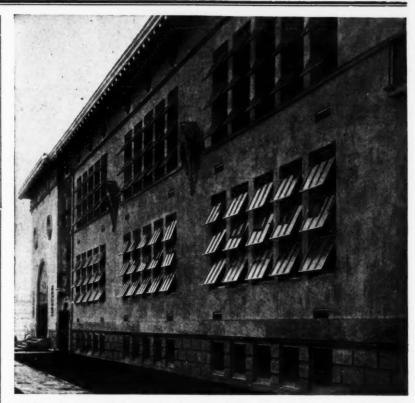
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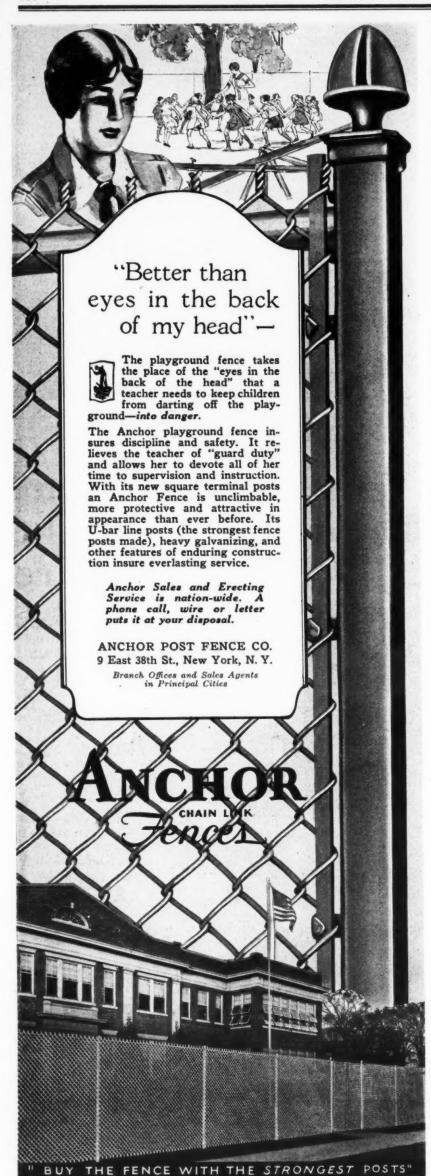
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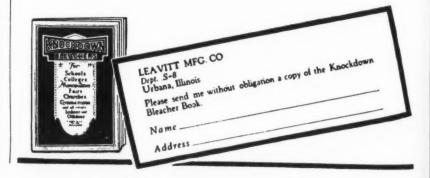
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PUBLICATIONS RECEIVED

Length of the School Day. City School Leaflet No. 25, July, 1927. Issued by the United States Bureau of Education. Practically the only guides a school board has in determining the length of the school day are opinion and current practice. The present pamphlet gives the results of a questionary sent to superintendents of schools in cities. The present pamphlet gives the results of a questionary sent to superintendents of schools in cities of 30,000 population and over and shows the practice of different schools governing the length of the school day, the length of the noon hour, recess periods, and other facts.

The table on the length of the school day in cities with a population of 100,000 and over, shows that the school sessions are from 8:30 a.m. to 3 or 3:15

the school sessions are from 8:30 a.m. to 3 or 3:15 p. m. in the higher elementary grades in Birmingham, Chicago, Cincinnati, and Detroit; Fort Worth has sessions from 8:45 a.m. to 3:30 p.m., and Des Moines from 8:50 to 3:35; Albany, Akron, Baltimore, Buffalo, and Cleveland have sessions from 9 or 9:30 to 3:30 or 3:45. In the junior-high schools, Chicago, Cincipneti, and Detroit over at schools, Chicago, Cincinnati, and Detroit open at 8:30 a. m. and close at 2:30 or 3:00 p. m.; Akron and Baltimore open at 9 or 9:30 and close at 2:30 or 3:30 p. m. In the senior high schools, Cambridge, Chicago, Cincinnati, Cleveland, Des Moines, and Detroit years at 8:30 a. m. and close around and Detroit open at 8:30 a.m. and close around 215 or 3:15 p.m In the report it is shown that the median length of the school day is 5 hours in the elementary grades, 5 hours and 45 minutes in the junior high-school, and 5 hours and 35 minutes in the senior-high school.

The report also shows that the median length of the recess period in cities of 100,000 population and over is 20 minutes in elementary grades, 15 minutes in the junior high school, and 15 minutes in the senior high school. In the elementary grades, 7 cities reported no recess periods, 15 reported one period a day, and 21 2 periods a day; in the junior high schools, 29 cities reported no recess period, 4 reported one period, and 2 two periods a day; in the senior high school, 38 cities reported no recess periods. recess periods, 4 reported one period a day, and 1

reported two periods a day.

Yearbook of the American Engineering Standards ommittee for Issued by the gineering Standards Committee at 29 West 39th Street, New York, N.Y. This pamphlet records the notable developments in industrial standardization, including the progress in the mechanical and mining industries, in industrial safety, its exten-

through managerial and trade-association activities, and forward steps in international co-operation during the last year. A table has been prepared showing the different group activities, the number of projects, the increases in the number of projects, and the number of approved standards since the publication of the 1926 yearbook. The topics covered in the report relate to types of standards, the method of work in the formulation of each standard, the initiation of projects, the correlation of work, and cooperation with foreign standardizing bodies. A list of standardization projects having the approval of the American Engineering Standards Committee has been included as an important part of the report.

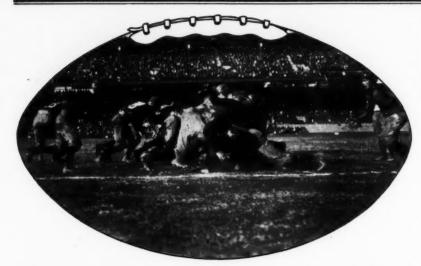
Studies in Natural Illumination in Schoolrooms.
Prepared by Taliaferro Clark and Arthur F. Beal.
Price, fifteen cents. Issued by the U.S. Public Health Service through the Government Printing Office, Washington, D.C. The authors of this pamphlet attempt to show that the adequacy of the natural lighting of the classroom is affected by a number of factors which govern the amount of daylight admitted. With a given intensity of illumination, the amount admitted to the interior will depend upon the size, shape, depth, and position in the wall of the window openings. Daylight illu-mination of classrooms, it is stated, is often de-fective because due measures have not been taken to secure the maximum diffusion of light entering such rooms. The diffusion of light depends upon the fact that all materials reflect light and scatter it to a greater or less degree. The ratio of diffused to reflected light by objects varies greatly accord-ing to the nature of the surface and its polish.

The present pamphlet comprises a report based upon a study of 45,000 observations of daylight illumination on 24 selected desks in four classrooms, covering the school day for an entire school year. A number of condensed tables are given showing the outside mean illumination for each hour and month, the average illumination for each desk for each hour, changes in illumination for each desk, seasonal variation, variation between desks, degrees of adequacy for each hour, ratio of light on certain foot-candles. It is found that the adequacy of the natural lighting of classrooms is determined by three sets of factors, namely: (1) astronomical and meteorological, (2) physical, and (3) physiological. The effect of the orientation of windows, the seasonal illumination of desks in midwinter, and the distribution of light in the room are all important factors which have a special bearing in a study of school lighting.

Laboratory Study of the Reading of Modern Foreign Languages. By G. T. Buswell. Paper, 100 Foreign Languages. By G. T. Buswell. Paper, 100 pages. Published by the Macmillan Company, New York and Chicago. This study is part of an inquiry undertaken by The Modern Foreign Language Study and takes up three problems, namely, the determination of the optimum age at which a student should begin the study of a foreign language, the effect of different methods of teaching upon progress in reading a foreign language, and a comparison of progress of students studying French and those studying German. and those studying German.

The author emphasizes that the aim of the first stage of foreign language teaching is to attain the ability to read silently and in a manner closely resembling good reading in the mother tongue, and regardless of the time necessary for reaching this point. All written and oral exercises are subsidiary to this primary and essential aim. When this point has been attained, the student is ready for a course in grammar which enables him to grasp more exactly what he reads, and for a course in literature, which provides for appreciation and enjoyment.

The pamphlet discusses the effect of age upon the beginning of a foreign language, the effect of different methods of teaching; it offers a compari-son of the reading of different foreign languages, and concludes with a summary of the conclusions reached in the study. It is brought out that there is no noticeable difference between students who begin the study of French in high school and students who begin at the college level; that the dents who begin at the college level; that the method of teaching a foreign language has a striking effect upon the reading habits of students, and that the maturity which results from two years of study is greater with students taught by a direct method than with those taught by an indirect translation method; that approximately equal degrees of maturity are reached in the study of French, German, and Spanish when these languages are taught by similar methods and under similar conditions; and that in no case does the similar conditions; and that in no case does the median student in a second-year group approach the maturity of reading habits attained by the expert groups of readers. These conclusions may be sub-jected to further analysis and interpretation.



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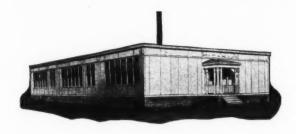


This free book is not a catalogue —has interesting information for school boards and superintendents.

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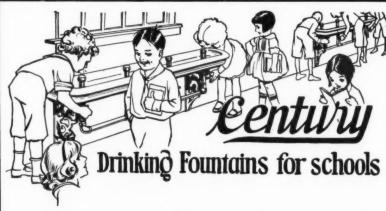
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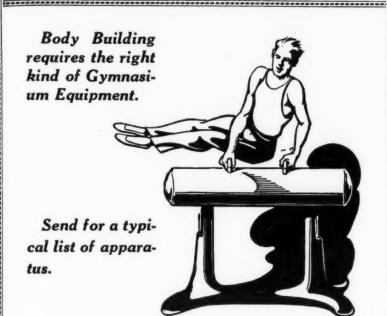
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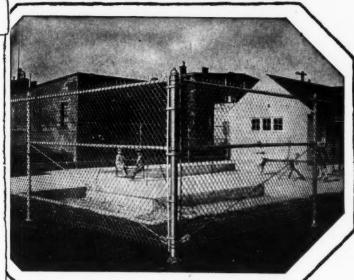
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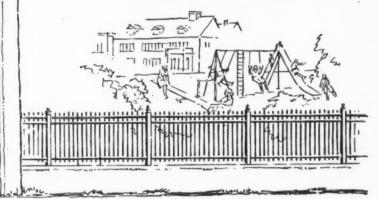
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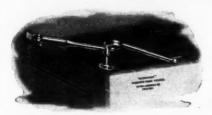
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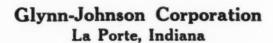
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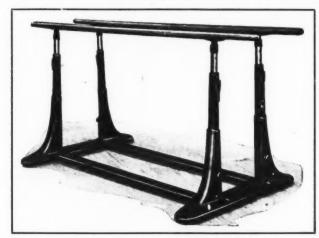
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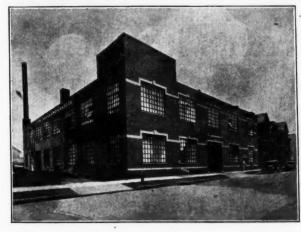
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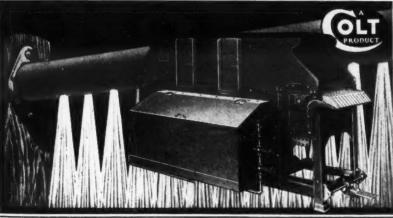
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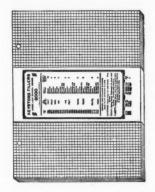
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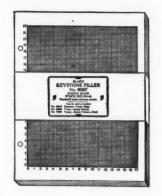
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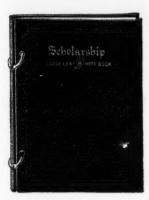




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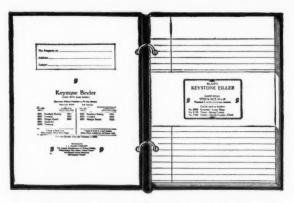
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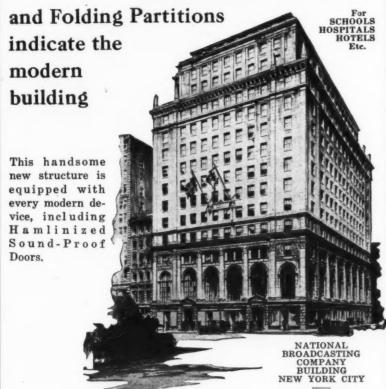
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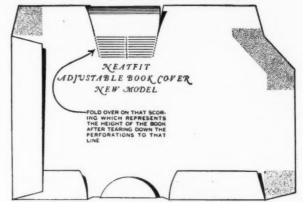
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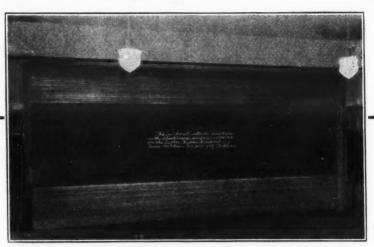
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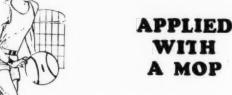
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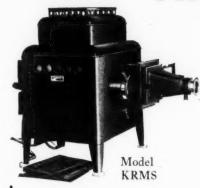
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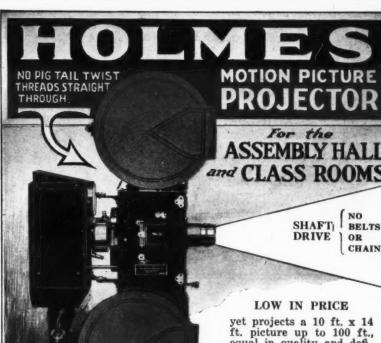
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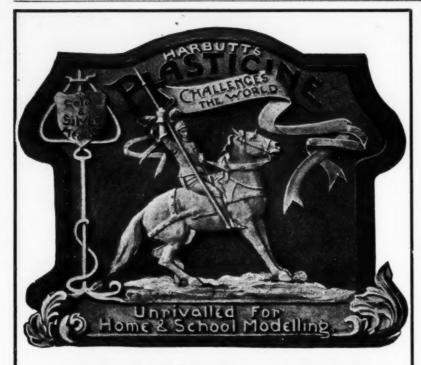
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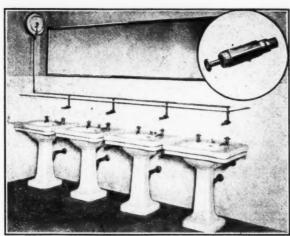
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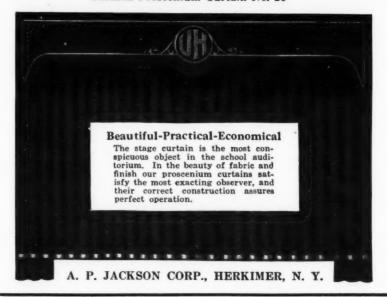
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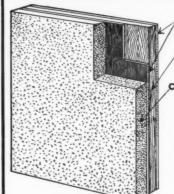
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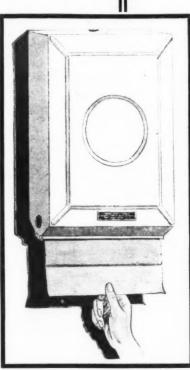
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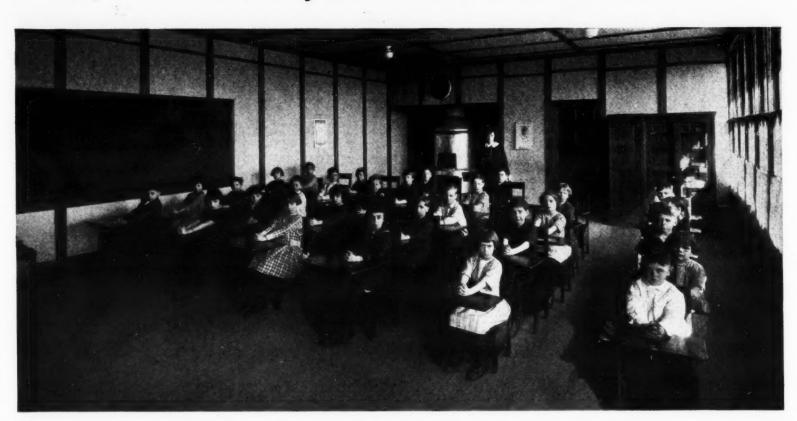
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(Continued on Page 173)

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to provide these light, airy, healthful class rooms



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A Girl's Essay on "Boys"

The boy is not an animal yet they can be heard to a considerable distance. When a boy hollers he opens his big mouth like frogs-but girls hold their tongue till they are spoke to, and then they answer respectable and tell just how it was. A boy thinks himself clever because he can wade in water where it is deep, but God made the dry land for every living thing, and rested on the seventh day. When a boy grows up he is called a husband and then he stops wading and stays out nights, but the grew up girl is a widow and keeps house.

Why I Am Glad That I Am a Boy
I am glad that I am a boy because boys are
fonder of open-air enjoyments such as fishing, football, and cricket, which lead to health and happiness. I am glad because boys have more suitable raiment to face the storms of the seasons. Boys are also stronger than girls, they're more muscular, but in will-power we must give place to the girls. I am glad also because the male race is so much more silent than the female race. We learn the more silent than the female race. We learn the reason from the story of the Creation, for man was made from the dust of the earth and woman from the ribs of a man. Take a sack of dust and drop it down a hole, you will only hear a small thud, but if, in a similar way, you drop down a sack of bones, you hear a great rattle. Dust is more silent than bones.—Revue Internat. de l'Enfant.

#### Predicted Her Future

Mr. W. E. Pulsifer, who has recently retired from the presidency of D. C. Heath & Company, is a kindly critic of manuscripts presented to him and can return impossible material with a tactful refusal. Early in his career as a bookman, a Massachusetts teacher sent him a voluminous bundle for a book on school management. It was returned with a kindly letter, but some months later it came again with a peppery request for reconsideration. Again it was returned.

At a convention several weeks afterward, a lady stopped Mr. Pulsifer in the hotel lobby and intro duced herself as the author of the manuscript which had been twice refused. She asked con-cerning it and added archly: "What do you hon-

estly think of my work?"

"Well," said Mr. Pulsifer in his kindliest, courtliest manner, "if you keep on writing you will develop a very fine handwriting."

Prof. (calling roll): "Smith."

Smith: "I'm not here to-day, professor. Don't you remember? I'm working up at your house to-day."

Prof. (absently): "Quite so. Spade the garden and mow the lawn before you leave. I shall expect it done when I get home."—Allston Recorder.



Teacher (testing a dull pupil in some individual work in history): "And what happened on August 4, 1914?"

Pupil (triumphantly): "Why, that was the day I was born, sir." (London) Teachers World.

#### Correct

"Agnes," said the teacher, "can you tell me what an island is?"
"Yes, ma'am," was the prompt reply. "It's

"Yes, ma'am," was the prompt reply.
a place you can't leave without a boat."

Soliciting Their Return

The professor and his wife had enjoyed their previous holiday on a farm so well that they wished to repeat it.

The only thing that made them doubtful was that they had been somewhat annoyed by the close proximity of the pigsty to the house.

Finally the professor wrote to the farmer and explained the objectionable feature.

He received the following reply:

"We ain't had no pigs on the place since you was here last summer. Be sure to come."

Safety First

The Sunday school teacher had been telling her class all about the cannibals and the missionaries

who went out to foreign places.

"Now, children," she asked, "what do you think would be the first thing the missionaries should teach the cannibals?"

"Please," suggested Billy, "they should teach the the very right."

them to be vegetarians!"

Do They?

"Teacher, do the Esquimaux live on oil?"

"Yes, my child, very largely."
"And is oil fat?"

"And does oil ever come out of the ground?"

"Well, the Esquimaux live on the fat of the land, don't they?

Pretty Nearly Right

The kindergarten class was having a lesson in elementary geography. "Can anyone tell me what a volcano is?" asked the teacher.

"Oh, yes!" answered one small boy, "It is a high mountain that keeps on interpreting."

high mountain that keeps on interrupting."

Teacher: (to mother who has watched a socialized recitation). Things have changed since you went to school to me, haven't they?

Parent: They surely have. When I went to school you wouldn't let us think.

He Knew

The teacher was trying to demonstrate a simple experiment in the generation of steam.
"What is this I have in my hand?" she asked.

"A tin can," came the answer.

"All right. Is the can animate or inanimate?"
"Inanimate."

"That's right. Now can anyone tell me how with this can, it is possible to generate an amount of speed and power almost beyond control?"

No one answered for a moment. Then a boy's hand shot up in the air.

"Tie it to a dog's tail!" he exclaimed.

Correct "Now, Angus," the teacher said to little Angus MacGregor, "supposing that you had a dollar; and that you loaned Willie there forty cents, James thirty cents, and Freddy fifteen cents. would that be?" What

"Poor judgment."

Visiting Doctor: How is it, Sambo, that you and your large family keep so healthy?

Sambo: Well, sah, Ah tell you: we've done bought one of dose sanitary drink-in' cups an' we all drink outen it.

Indirect Etiology

On his way home from school, Tommy looked sad and worried.

"Dear me!" exclaimed a sympathetic old lady, "what-ever is troubling you, my little man?"

"Dyspepsia and rheumatism," replied Tommy.

"Oh, surely not," said the d lady; "how can that old lady; be?"

Jo'l Am., Medical Assn.

Woof! Woof!

"Teacher caned me 'cause I couldn't spell them," answered Tommy dismally. them,"

Teacher: Try this sentence: "Take the cow out of the lot." What mood?

Pupil: The cow.—Out-



BUYING SCHOOL SUPPLIES

"Going to market with from \$15,000 to \$20,000 to spend is the annual summer experience of Edwin

G. Beardmore, purchasing agent for the school system," says the Northwestern of Oshkosh, Wis.

"Unlike the housewife, who purchases a market basketful of supplies and then considers it a deed well done, Mr. Beardmore's purchases are of larger quantities, running into truckloads and tons of items of every kind and description.

"Mr. Beardmore's annual shouning list includes

"Mr. Beardmore's annual shopping list includes such necessary items as coal, books, paper, lumber for the manual-training departments, tools, drygoods, kitchen supplies and a 'hundred-and-one-ormore' other things. In fact, his purchases range all the way in size from large machinery to thumb tacks, it is noted in reviewing his market list."

GRAHAM BROTHERS' NEW TWO-TON

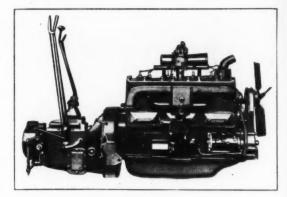
TRUCK

TRUCK

Graham Brothers, manufacturers of school motor busses, Detroit, Michigan, have announced the marketing of a new, fast line of economical automobile trucks, the principal feature of which is a fast and powerful six-cylinder, two-ton chassis

available in three types.

The new motor bus insures quick acceleration and braking and fast, economical service on the road, while the qualities of rugged strength and dependability of the former designs have been retained. Four features of the new bus are particularly important and are worthy of mention. These are the engine, a four-speed heavy-duty transmission, fourwheel hydraulic brakes, and remarkably low price.



SIX-CYLINDER ENGINE AND HEAVY-DUTY FOUR-SPEED TRANSMISSION.

The design of the six-cylinder engine is consistent with Dodge Brothers' reputation for automobileengine building. The seven-bearing crankshaft is an important feature for rugged service and weighs only 69 pounds. The connecting rods and pistons are of a good grade of material intended to give strength and snap as required in a modern motor

School authorities who are interested in school motor busses may obtain further information by writing to the Graham Brothers Company at Detroit, Michigan.

Explained

"Where were you yesterday, Walter?" a teacher said to one of her pupils.
"I had a toothache," was the reply.

"That's too bad," sympathized the teacher. "Has it stopped?" "I don't know."

"Don't you know if your tooth has stopped aching?"

"No, ma'am, the dentist kept it."

The Reason
The school board was paying a monthly visit to the schools, and one of the members, in speaking to a fifth-grade class, remarked: "I wish I were a little boy at school again."

He allowed a few moments for this to sink in and then added, "do you know why I wish that?" The class pondered over that for a moment, then

a small boy replied, "Cos you've forgot all you ever knowed."

Misunderstood

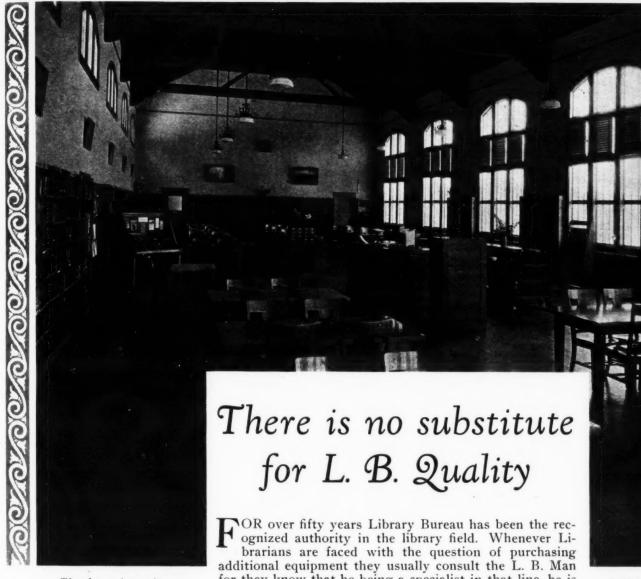
Stopping one of her scholars in the middle of a recitation, a teacher spoke to a little girl who had

been waving her hand for several minutes.
"What is the matter down there, Mary?" the

teacher inquired.
"Tommy Groves was hissing Cecelia," was the

indignant reply. "I w-w-was n-not," Tommy stammered. "I just s-s-said that S-S-Cecelia s-s-speaks pieces s-s-swell!"

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The above picture is a partial view of the library in the Glendale Union High School, Glendale, Calif., which is completely equipped with L.B. library furniture.

for they know that he being a specialist in that line, he is able to offer worth-while suggestions and also recommend the type of equipment which is best suited to their needs.

Librarians also know, and appreciate the fact that they are at liberty to call upon the L. B. Planning Department at any time for suggestions and plans inasmuch as the Planning Department is constantly on the alert to meet changing conditions.

Just as an example of L. B. Service let us mention the installation of L. B. equipment in the Glendale Union High School library, Glendale, California, which is pictured above. This equipment includes tables, chairs, charging desk, magazine and newspaper racks, and sectional wood shelving. In fact everything which was considered to be necessary equipment was furnished by Library Bureau.

This installation is but one of the hundreds of other similarly outstanding examples of L. B. Service.

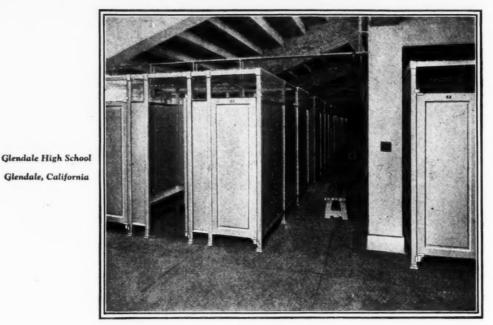
If a new library is being planned, which will of course necessitate purchasing complete equipment; or if additional equipment and supplies are needed for your present one, please feel at liberty to call on the L. B. representative, for in either case he will be only too glad to cooperate with your board by presenting plans and specifications. Library Division offices are located in the following Rand Kardex Service Branches: 118 Federal Street, Boston, Mass.; 451 Broadway, New York City; 214 W. Monroe Street, Chicago, Ill.; 759 South Los Angeles Street, Los Angeles, Calif.; 39 Second Street, San Francisco, Calif.; 447 Dexter-Horton Building, Seattle, Wash.; and 1903 Main Street,

LIBRARIANS! ARCHITECTS!
In order to make it easier for you to select certain types of L. B. library equipment when the occasion arises for additional purchases, we have prepared a booklet "Library Supplies" which is devoted to Library Bureau equipment and supplies. A FREE copy is yours for the asking.

Merely address your request to one of the of fices mentioned below.

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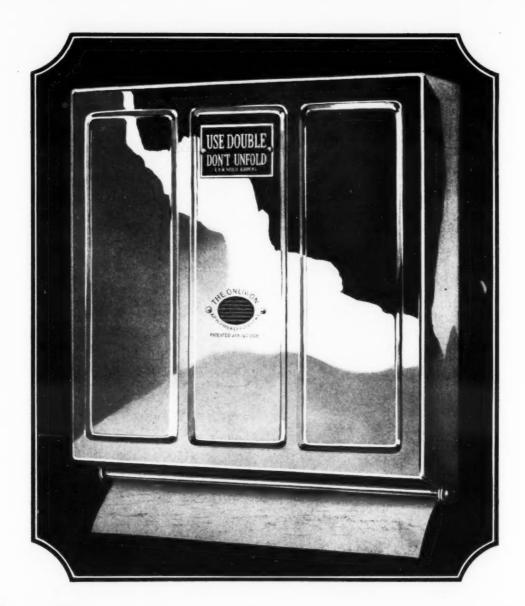
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